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MINERAL INDUSTRY SURVEYS

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JUNE 1971

PETROLEUM PRODUCTS SURVEY
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MOTOR GASOLINES, WINTER 1970-1971

MOTOR GASOLINES, WINTER 1970-1971

by

Ella Mae Shelton and C. M. McKinney

Bartlesville Petroleum Research Center, Bureau of Mines
U.S. Department of the Interior, Bartlesville, Okla.

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INTRODUCTION

The properties of motor fuels sold through service stations in the United States are reported in accordance with a cooperative agreement between the American Petroleum Institute and the Bureau of Mines of the United States Department of the Interior. By agreement with the American Petroleum Institute, identification of the data by item number is confidential.

Analytical data for 4,404 samples that represent the products of 54 companies are included. Company representatives collected the samples during December 1970, January, and February 1971. As in previous surveys, the gasolines covered by this survey include those from both large and small suppliers. Laboratories of various refiners, motor manufacturers, and chemical companies obtained and submitted the data to the Bureau of Mines for compilation. Motor-gasoline survey reports published during the past 10 years are listed on page 4.

SUMMARY

The characteristics of motor gasolines for winter 1970-71 are summarized in table 1, and for comparison, those for winter 1969-70 are shown in table 2. Trends of some of the more important characteristics for several years are shown in figures 1 and 2. The following data show trends of national average octane numbers during recent years:

	Regular-price		Premium-price	
	Octane number		Octane number	
	Research	Motor	Research	Motor
Summer 1969	93.8	86.1	99.9	92.0
Winter 1969-70	93.8	86.3	99.8	92.2
Summer 1970	93.8	86.3	99.8	92.2
Winter 1970-71	93.9	86.4	99.8	92.2

Tables 3 and 4 show regional average octane numbers of regular- and premium-price fuels.

Data for third grade, intermediate grade, and super-premium gasolines are included in table 5.

Data for gasolines that contained less than 0.75 g Pb/gal are included in table 6. Four hundred sixteen samples representing 16 brands marketed in 44 locations are represented in the table. Data for each of the 155 items in the table are averages for the number of samples indicated.

DISCUSSION OF DATA

Terms used in the surveys have the following meanings:

District: The designation of a marketing area for collecting samples and data. The present arrangement of 17 districts, developed by the CFR Committee, 1/ was selected with reference to the specifications on motor gasolines, refinery locations, population centers, and arteries of commerce such as navigable rivers. The States or parts of States in each district are indicated in the headings of table 3 and are shown in figure 5.

Brand: The gasoline sold within a given price group and by a given trade name.

Item: The index number assigned to a brand in each district. Each item represents the average of the data submitted for each brand within the specified district. The number of samples represented follows the item number.

Sample: The supply of gasoline obtained at the service station and analyzed in the laboratory.

Table 3 presents by districts data for gravity in degrees API, sulfur, gum, lead, research- and motor-method octane numbers, Reid vapor pressure, and distillation characteristics of the motor fuels collected. The tests were made according to American Society for Testing and Materials standards. 2/

Corrosion test results are not included in the district tables as all the reported numbers are "1," according to the corrosion scale given in table 1 of ASTM D130. 2/

1/ Coordinating Fuel and Equipment Research Committee (formerly the Coordinating Fuel Research Committee) of the Coordinating Research Council, Inc. From 1935 to 1948 the motor-gasoline surveys were conducted under a cooperative agreement between the Coordinating Research Council and the Bureau of Mines.

2/ American Society for Testing and Materials, 1970 Annual Book of ASTM Standards, Part 17, Petroleum Products -- Fuels; Solvents; Burner Fuel Oils; Lubricating Oils, Cutting Oils; Lubricating Greases; Hydraulic Fluids, Philadelphia, Pa., 1,294 pp.

Gum test data are reported to the nearest whole number. The distillation temperatures, corrected to barometric pressure at 760 mm Hg, are those for percent evaporated.

Average values follow the tabulated data in table 3 for the respective grades of fuel shown in each district. The averages of the various properties were computed without reference to the total number of samples represented by each item.

The district averages from table 3 are shown in table 4 with the number of brands and number of samples for regular- and premium-price gasoline in each district. The national averages for each of the properties of fuels sold in each of the 17 districts are given at the end of table 4.

Table 5 shows data for third grade, intermediate grade, and super-premium motor gasolines.

Figures 1 and 2 illustrate trends in the national averages of certain properties of regular- and premium-price gasolines, respectively, since the summer of 1946. Averages for the winter surveys are plotted on the lines that represent the years and for the summer surveys between the lines. Octane-number points are connected for successive surveys, but those for Reid vapor pressure and distillation temperatures are plotted separately for summer and winter surveys. Charts that show plots of these properties from 1935 (except winter 1941-42 and summer 1942) are presented in the survey report on motor gasolines for winter 1964-65 and preceding reports. 3/

Figures 3 and 4 illustrate distribution (frequency) of octane values by numbers of samples for all grades of fuel represented. Each bar represents one-half octane number.

Data for gasolines that contained less than 0.75 g Pb/gal are included in table 6. The analyses represented by the data in table 6 also are included in the items in tables 3 and 5 with their respective grades. However, the data in table 6 do not correspond to item numbers in the other tables because data in table 6 were collated for each brand marketed in each city, rather than for each brand marketed in an entire district.

Tables 7 and 8 show the percentages of all samples for each district at each whole octane number level, cumulated according to increasing octane number.

3/ Blade, O. C., Motor Gasolines, Winter 1964-65. Bureau of Mines Petroleum Products Survey No. 40, 38 pp. (in cooperation with the American Petroleum Institute).

The districts, locations, and number of samples of gasoline represented are listed in table 9 and shown on the map in figure 5. The locations are named for the principal cities in the respective vicinities, and include suburbs and adjacent communities. The area of the circle at each location is proportional to the number of samples obtained. The summary at the end of table 9 lists by district, the number of locations, samples, and the percentages of the latter based on the total reported.

This report does not discuss the significance of the data presented. Reference may be made to the ASTM specification 4/ for motor gasoline and its appendix, "Significance of ASTM Specifications for Motor Gasoline," at a technical library.

LIST OF MOTOR-GASOLINE SURVEY REPORTS, 1961-71

Author	Season and Year	PPS Report No.	Date Published	No. of pages
In cooperation with the American Petroleum Institute				
Blade, O. C.	Winter 1961-62	25	June 1962	33
Do.	Summer 1962	27	Jan. 1963	32
Do.	Winter 1962-63	30	June 1963	32
Do.	Summer 1963	33	Jan. 1964	35
Do.	Winter 1963-64	35	June 1964	40
Do.	Summer 1964	37	Dec. 1964	40
Do.	Winter 1964-65	40	July 1965	38
Do.	Summer 1965	43	Jan. 1966	39
Do.	Winter 1965-66	45	June 1966	38
Do.	Summer 1966	48	Dec. 1966	38
Do.	Winter 1966-67	50	June 1967	38
Do.	Summer 1967	53	Dec. 1967	38
Do.	Winter 1967-68	55	June 1968	39
Do.	Summer 1968	58	Jan. 1969	38
Do.	Winter 1968-69	60	July 1969	38
Blade, O.C. and Ella Mae Shelton	Summer 1969	63	Jan. 1970	38
Shelton, Ella Mae and C.M. McKinney	Winter 1969-70	66	Aug. 1970	47
Do.	Summer 1970	68	Jan. 1971	49
Do.	Winter 1970-71	This report		

4/ American Society for Testing and Materials, Standard Specifications for Gasoline (D439): 1970 Annual Book of ASTM Standards, Part 17 (see footnote 2), pp. 173-183.

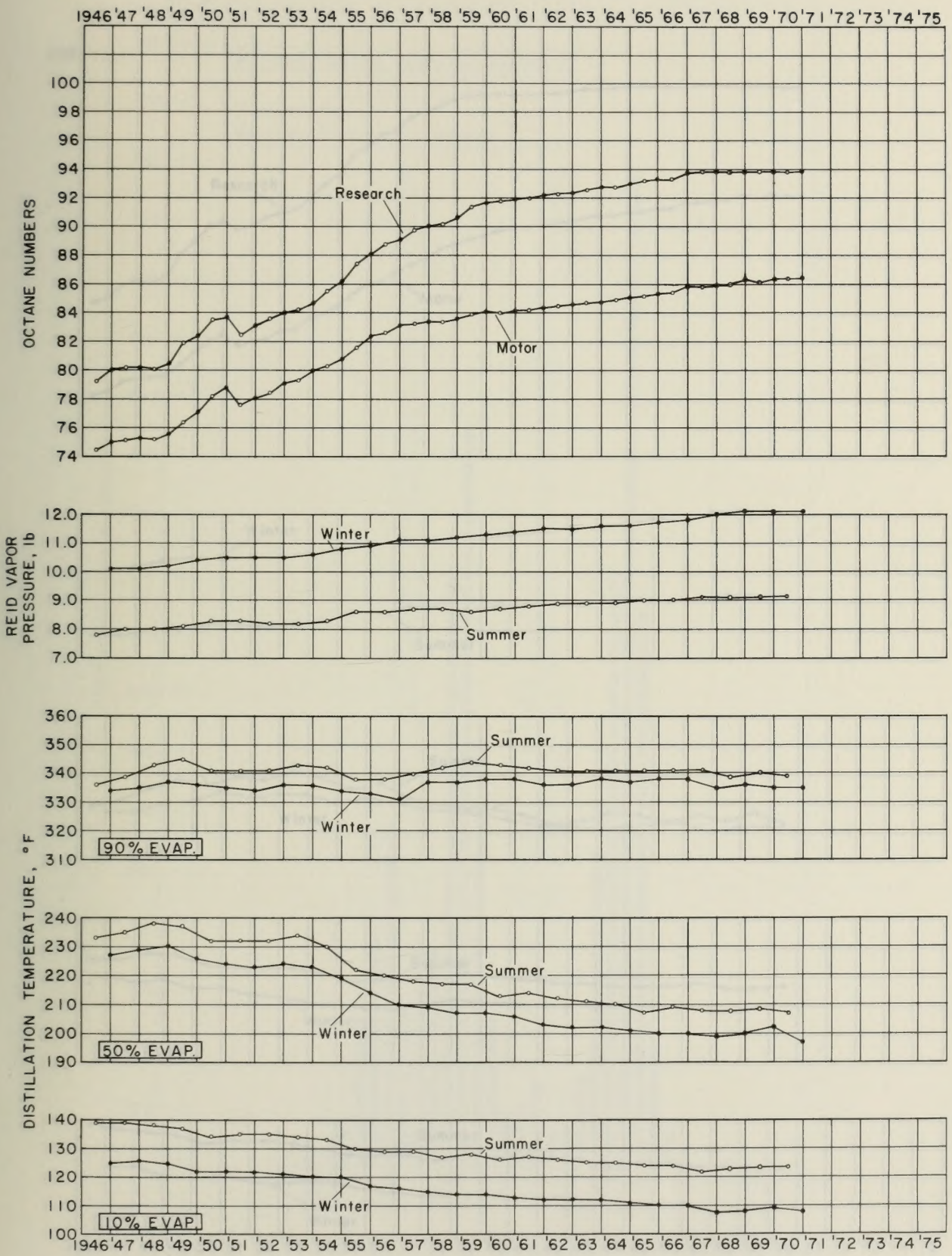
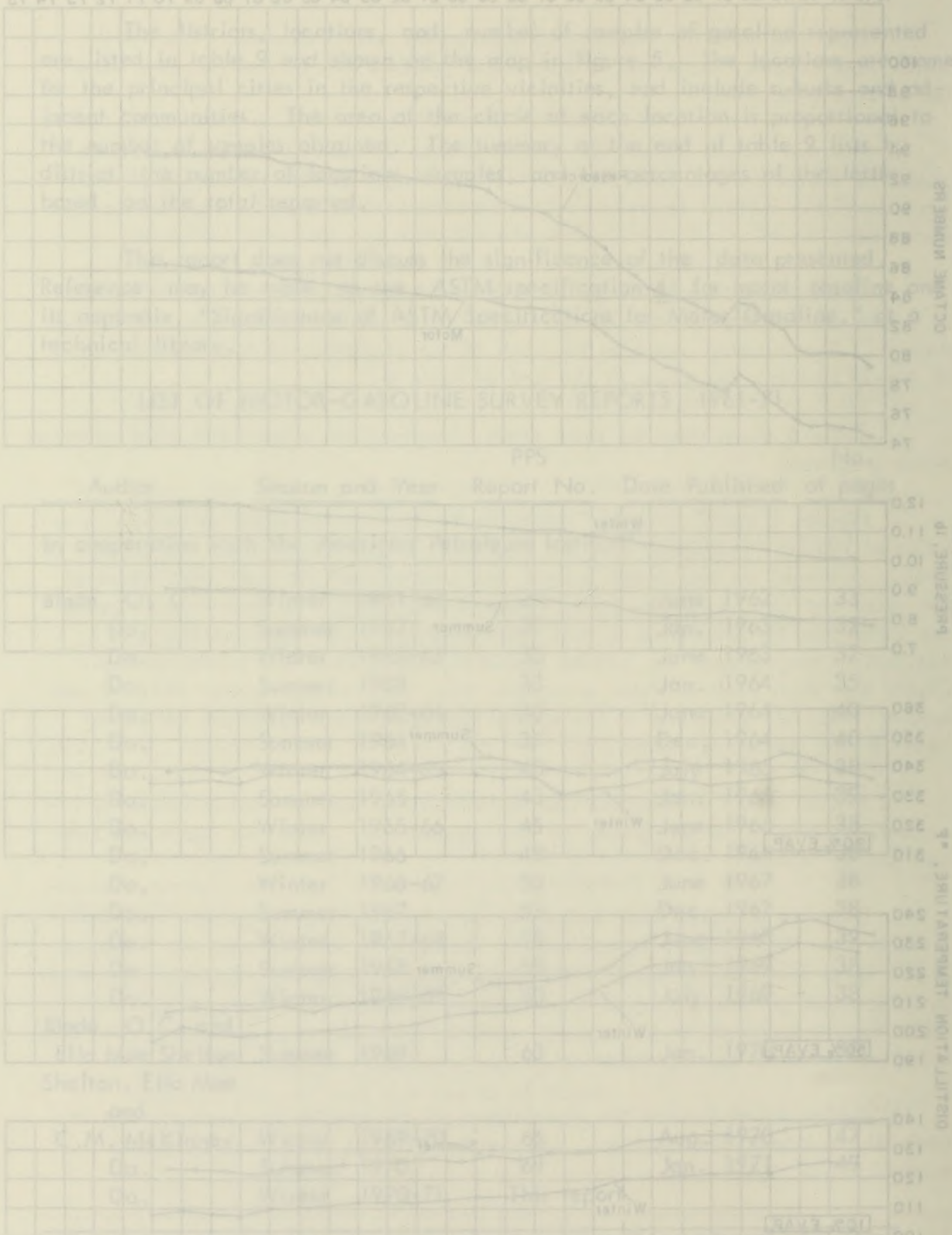


FIGURE 1.—Trends of Certain Characteristics of Regular-Price Gasolines.


Motor
Summer
Winter
Summer
Winter
Summer
Winter

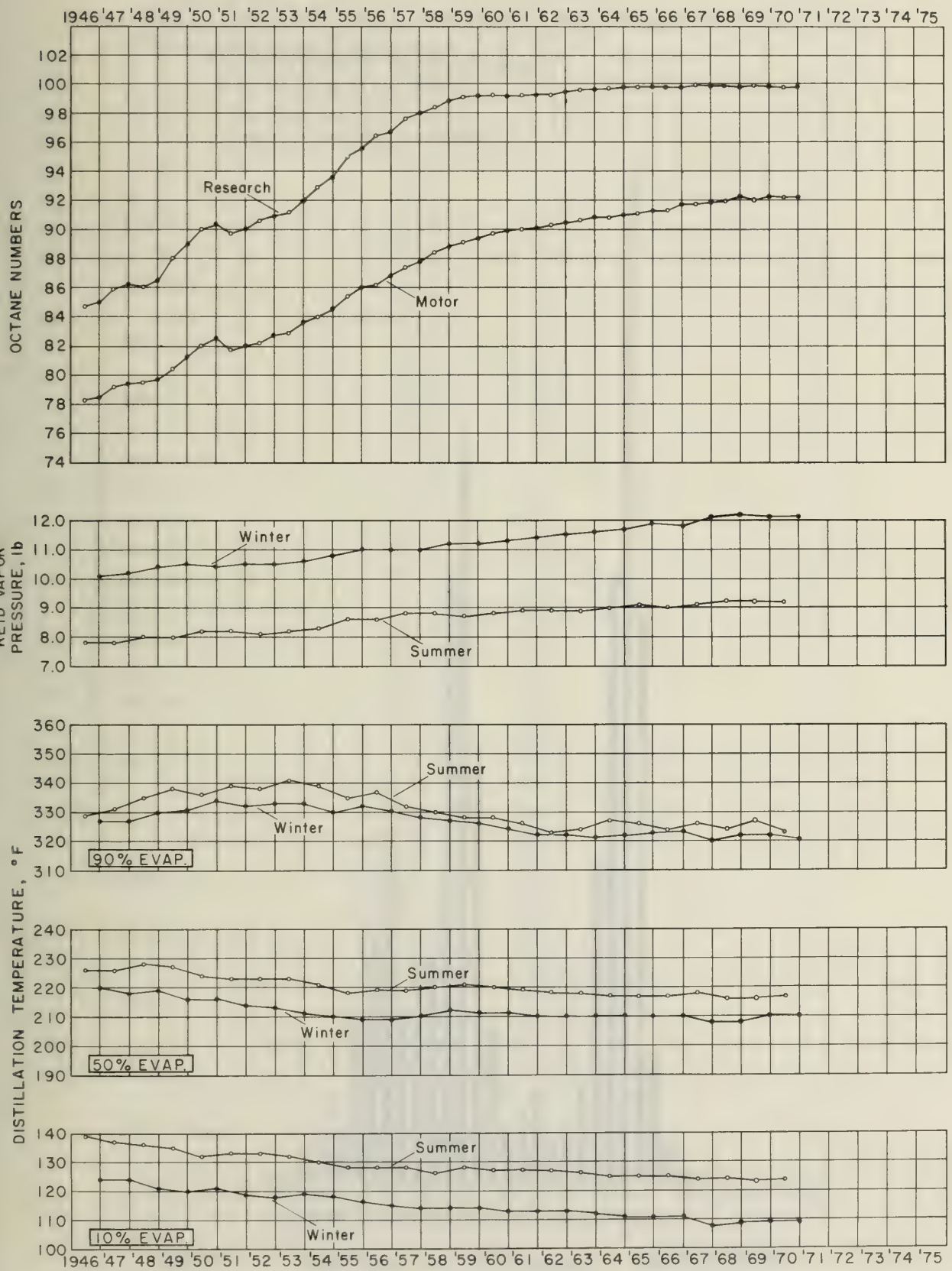


FIGURE 2.—Trends of Certain Characteristics of Premium-Price Gasolines.

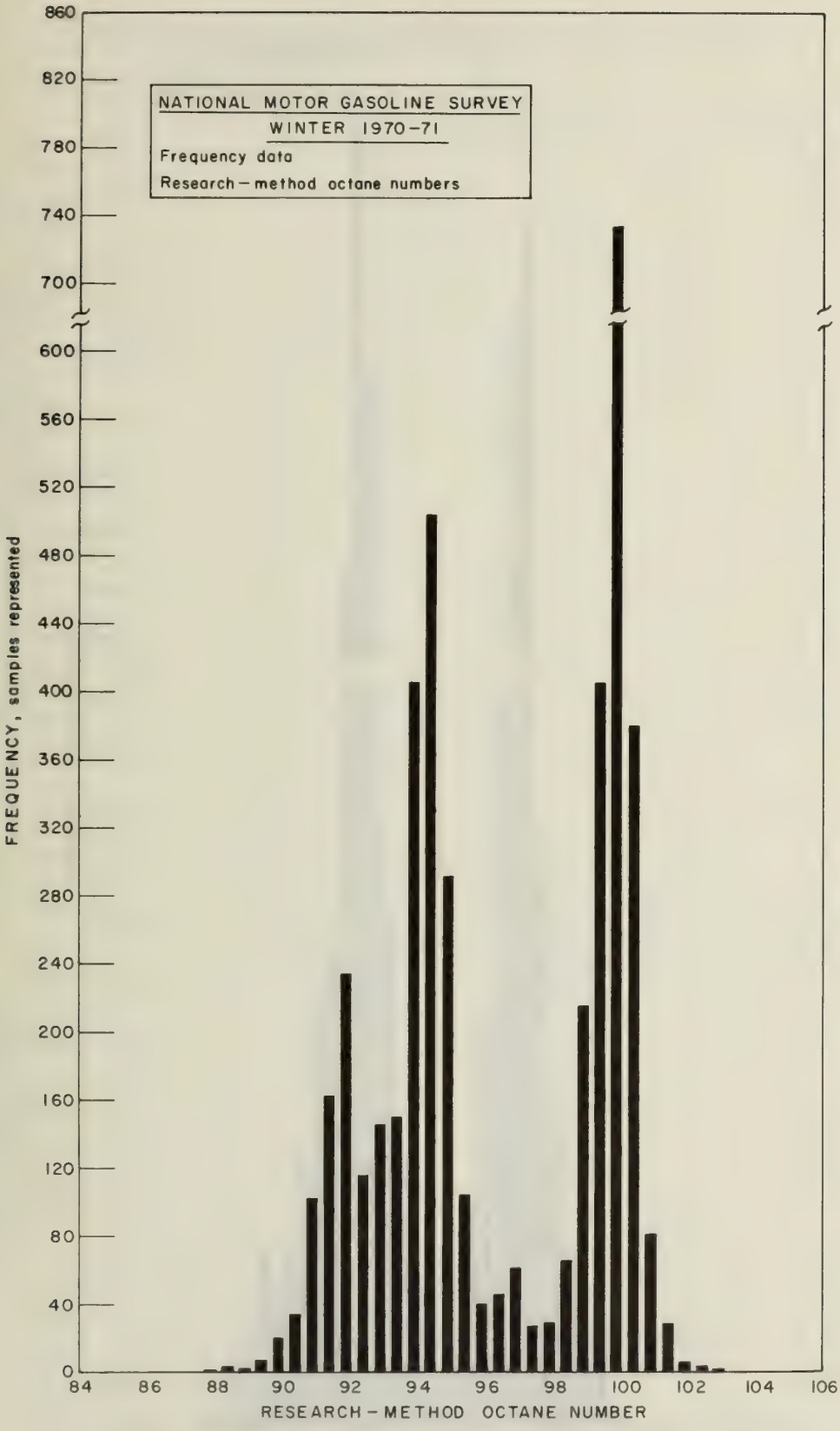


FIGURE 3.- Distribution of Research-Method Octane Numbers.

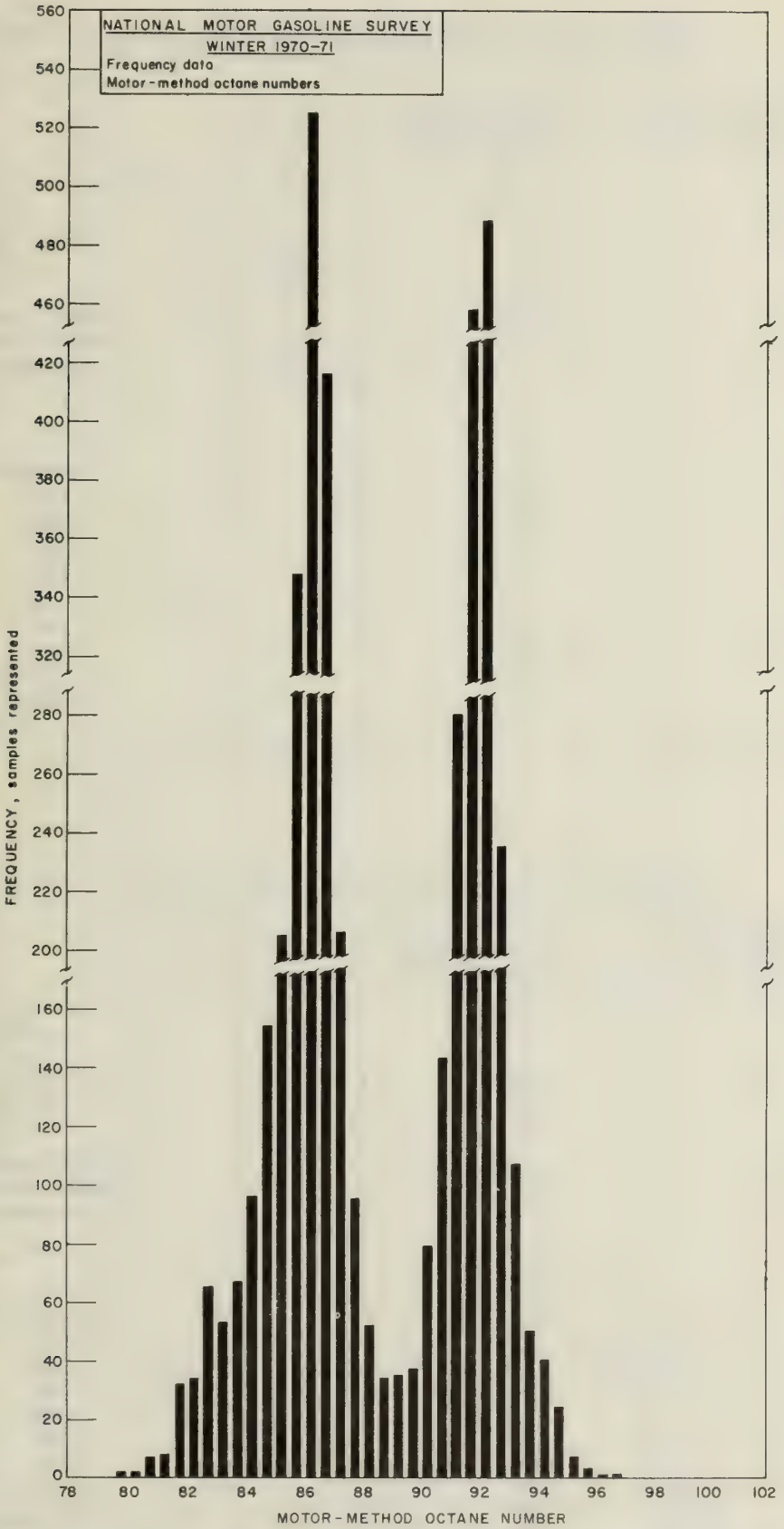


FIGURE 4.-Distribution of Motor-Method Octane Numbers.

TABLE 1. - Summary of values, motor gasoline survey, winter 1970-71

Test	ASTM method	Regular-price gasoline Average	Premium-price gasoline Average
Gravity, °API	D287	63.1	62.6
Corrosion, No.	D130	1	1
Sulfur content, wt %	D1266	0.039	0.023
Gum, mg/100 ml	D381	1	1
Lead, g/gal	D526	2.02	2.60
Octane number, Research	D908	93.9	99.8
Octane number, Motor	D357	86.4	92.2
Reid vapor pressure, lb	D323	12.1	12.1
Distillation	D86		
Temp, °F			
IBP		84	83
5% evaporated		95	95
10% Do.		108	109
20% Do.		127	132
30% Do.		149	158
50% Do.		197	210
70% Do.		253	253
90% Do.		335	321
95% Do.		368	353
End point		406	396
Residue, vol %		1.0	1.0
Loss, vol %		2.1	2.3

TABLE 2. - Summary of values, motor gasoline survey, winter 1969-70

Test	ASTM method	Regular-price gasoline Average	Premium-price gasoline Average
Gravity, °API	D287	63.0	62.9
Corrosion, No.	D130	1	1
Sulfur content, wt %	D1266	0.043	0.020
Gum, mg/100 ml	D381	2	1
Lead, g/gal	D526	2.26	2.71
Octane number, Research	D908	93.8	99.8
Octane number, Motor	D357	86.3	92.2
Reid vapor pressure, lb	D323	12.1	12.1
Distillation	D86		
Temp, °F			
IBP		83	83
5% evaporated		96	95
10% Do.		109	109
20% Do.		130	133
30% Do.		153	158
50% Do.		202	210
70% Do.		256	255
90% Do.		335	323
95% Do.		368	355
End point		411	403
Residue, vol %		1.0	0.9
Loss, vol %		2.1	2.3

TABLE 3. - MOTOR GASOLINE SURVEY, WINTER 1970-71
AVERAGE DATA FOR DIFFERENT BRANDS

DIST. 1 NORTHEAST
MAINE, MASS., N.H., VT., AND NORTHERN N.Y.

REGULAR-PRICE GASOLINE

ITEM	SAMPLES	GR., ASTM D287 API	SULF, ASTM D1266 WT %	GUM, ASTM D381 MG	LEAD, ASTM D526 G/GAL	OCTANE NUMBER RES, ASTM D908	OCTANE NUMBER MOT, ASTM D357	OCTANE NUMBER R+M --- 2	RVP, ASTM D323 LB	DISTILLATION, ASTM D86 TEMPERATURE, F (CORRECTED TO 760 MM HG) IBP	PERCENT EVAPORATED 5	10	20	30	50	70	90	95	EP	RES %	LOSS %
1	4	65.0	0.071	2	2.11	95.0	85.6	90.3	12.5	83	92	105	123	140	180	238	327	361	398	0.8	2.8
2	4	63.5	.056	2	2.62	94.4	86.8	90.6	12.5	81	89	103	124	145	193	250	344	378	410	.9	2.2
3	5	62.0	.034	1	1.90	94.7	86.7	90.7	12.9	80	91	104	124	147	198	254	356	387	416	.9	2.9
4	8	64.6	.021	2	.98	95.1	86.4	90.8	13.8	75	83	97	116	141	195	257	324	355	385	1.0	2.8
5	8	60.3	.067	2	2.64	95.0	86.9	91.0	12.0	81	92	107	129	155	211	278	346	376	416	1.1	2.2
6	2	63.1	-	-	-	95.3	86.3	90.8	11.8	90	102	112	129	147	195	260	340	368	417	1.3	2.3
7	5	62.8	.036	2	2.09	94.3	86.8	90.6	12.3	80	95	104	127	151	208	272	354	380	413	.9	2.8
8	8	62.6	.073	2	1.97	94.4	86.4	90.4	12.4	80	92	105	124	148	206	274	349	382	410	1.1	2.0
9	3	64.4	.012	-	2.30	94.9	87.4	91.2	13.5	78	88	102	122	142	185	228	324	360	404	.7	1.3
10	3	62.1	.024	1	1.61	95.1	86.8	91.0	13.3	77	88	100	121	143	197	269	356	380	417	1.0	3.3
11	8	63.4	.031	2	2.06	94.3	86.5	90.4	12.4	81	92	106	128	153	203	256	327	355	391	1.0	2.4
12	1	61.6	.045	2	2.29	94.6	86.8	90.7	11.9	79	84	106	130	150	204	256	324	353	396	1.0	4.0
13	3	63.6	.034	-	1.88	94.6	86.4	90.5	13.3	76	88	100	118	139	186	249	340	374	400	1.0	2.0
AVERAGE		63.0	.042	2	2.04	94.7	86.6	90.7	12.7	80	90	104	124	146	197	257	339	370	406	1.0	2.5
SAMPLES	62																				

TABLE 3. - MOTOR GASOLINE SURVEY, WINTER 1970-71
AVERAGE DATA FOR DIFFERENT BRANDS--CONTINUED

DIST. 1 NORTHEAST--CONTINUED
MAINE, MASS., N.H., VT., AND NORTHERN N.Y.

PREMIUM-PRICE GASOLINE

ITEM	SAMPLES	GR., ASTM D287 API	SULF, ASTM D1266 WT %	GUM, ASTM D381 MG	LEAD, ASTM D526 G/GAL	OCTANE NUMBER RES, ASTM D908	MOT, ASTM D357	R+M --- 2	RVP, ASTM D323 LB	DISTILLATION, ASTM D86 TEMPERATURE, F (CORRECTED TO 760 MM HG) IBP	PERCENT EVAPORATED 5	10	20	30	50	70	90	95	EP	RES %	LOSS %
14	4	58.0	0.008	2	.00	100.5	90.6	95.6	12.6	77	86	103	128	160	218	244	293	324	360	0.8	3.2
15	5	61.2	.020	2	2.86	100.4	92.2	96.3	13.2	76	86	102	124	150	210	259	318	340	387	.9	2.8
16	5	63.2	.031	1	2.61	100.9	91.8	96.4	13.2	78	89	104	125	151	205	252	340	373	417	.9	3.4
17	8	68.1	.010	2	1.15	100.3	92.4	96.4	13.9	76	84	95	110	126	175	228	282	309	349	1.0	2.4
18	8	61.6	.009	2	2.19	100.1	92.1	96.1	12.2	81	91	105	126	150	212	264	323	359	396	1.1	2.3
19	2	63.4	-	-	-	100.2	92.3	96.3	11.8	90	101	112	130	153	208	255	320	355	409	1.1	2.4
20	4	59.4	.016	1	3.03	100.0	92.3	96.2	11.5	81	89	106	132	164	227	274	331	355	395	1.0	3.0
21	7	59.0	.017	1	2.51	100.3	92.4	96.4	12.9	79	87	100	121	146	212	263	322	355	397	1.0	2.8
22	3	63.5	.006	-	2.46	100.1	92.7	96.4	13.0	78	88	104	126	150	194	238	320	354	388	1.0	2.5
23	5	61.0	.015	2	2.76	100.3	91.8	96.1	12.9	78	87	101	123	147	206	264	335	372	418	1.0	2.8
24	8	63.7	.011	1	2.32	99.7	92.2	96.0	12.6	78	90	106	129	155	207	248	301	334	374	1.0	2.1
25	6	60.3	.031	1	2.95	100.8	91.3	96.1	12.9	77	87	102	127	154	209	259	324	347	376	1.1	2.7
26	1	59.4	.019	2	3.20	101.4	92.1	96.8	11.3	86	94	110	136	160	217	264	317	347	390	1.0	3.0
27	3	60.6	.013	-	2.73	100.1	91.9	96.0	13.0	78	89	106	133	162	218	260	318	344	382	.8	2.2
AVERAGE		61.6	.016	2	2.56	100.4	92.0	96.2	12.6	80	89	104	126	152	208	255	317	348	388	1.0	2.7
SAMPLES	69																				

TABLE 3. - MOTOR GASOLINE SURVEY, WINTER 1970-71
AVERAGE DATA FOR DIFFERENT BRANDS--CONTINUED

DIST. 2 MID-ATLANTIC COAST
R.I., CONN., N.J., DEL., MD., VA., CENTRAL AND SOUTHERN N.Y., AND EASTERN PA.

REGULAR-PRICE GASOLINE

ITEM	SAMPLES	GR., ASTM D287 API	SULF, ASTM D1266 WT %	GUM, ASTM D381 MG	LEAD, ASTM D526 G/GAL	OCTANE NUMBER RES, ASTM D908	OCTANE NUMBER MOT, ASTM D357	OCTANE NUMBER R+M --- 2	RVP, ASTM D323 LB	DISTILLATION, ASTM D86 TEMPERATURE, F (CORRECTED TO 760 MM HG) IBP	PERCENT EVAPORATED 5	10	20	30	50	70	90	95	EP	RES %	LOSS %
28	18	63.8	0.026	1	2.07	94.8	86.5	90.7	12.2	82	97	108	126	145	185	244	337	372	410	1.0	2.3
29	18	63.1	.027	1	2.15	94.5	86.8	90.7	13.3	82	91	105	126	150	197	248	332	368	405	1.1	2.6
30	17	63.1	.032	1	2.19	94.6	87.1	90.9	12.7	79	91	104	124	147	197	250	339	375	418	.9	2.6
31	9	63.5	-	-	2.12	94.7	86.6	90.7	13.0	77	89	101	121	141	188	245	333	368	409	.7	1.8
32	24	64.3	.036	1	1.23	95.0	86.2	90.6	13.8	76	85	96	116	140	192	253	334	369	402	1.0	3.6
33	24	61.0	.021	1	1.90	94.5	86.8	90.7	12.3	81	91	105	128	156	212	275	350	381	414	1.1	3.1
34	9	66.0	.023	2	2.18	94.8	87.9	91.4	12.3	84	93	104	119	136	181	242	328	360	409	1.1	1.9
35	17	62.9	.035	1	1.98	94.4	86.6	90.5	12.3	81	91	104	124	147	200	262	345	376	409	1.1	2.2
36	22	63.2	.044	0	1.98	94.3	86.4	90.4	13.0	81	91	103	122	146	199	261	342	374	409	1.1	2.6
37	9	61.3	.033	2	1.06	95.6	86.3	91.0	13.3	79	91	102	124	146	200	260	330	355	390	1.0	2.9
38	21	62.1	.015	1	1.60	95.0	87.0	91.0	13.1	79	87	99	119	142	198	268	351	380	414	1.0	3.0
39	24	63.2	.017	1	1.73	94.4	86.5	90.5	11.6	82	95	109	128	149	194	248	323	355	391	1.0	2.0
40	3	63.6	-	-	2.58	94.8	86.5	90.7	10.9	84	96	108	128	148	190	246	336	374	404	1.0	1.0
41	5	62.3	.013	0	1.98	95.2	86.6	90.9	12.3	87	100	114	136	158	209	263	336	366	402	1.2	2.1
42	3	63.8	-	-	2.19	94.3	86.5	90.4	13.0	80	88	102	122	144	194	254	338	374	414	.8	2.2
43	9	62.6	-	-	2.09	94.7	86.4	90.6	12.9	79	92	105	127	149	199	265	349	379	414	.7	2.0
44	4	62.7	.039	1	2.12	94.7	86.4	90.6	12.3	81	91	105	126	148	198	262	344	373	408	.9	3.3
AVERAGE		63.1	.028	1	1.95	94.7	86.7	90.7	12.6	81	92	104	124	147	196	256	338	371	407	1.0	2.4
SAMPLES	236																				

TABLE 3. - MOTOR GASOLINE SURVEY, WINTER 1970-71
AVERAGE DATA FOR DIFFERENT BRANDS--CONTINUED

DIST. 2 MID-ATLANTIC COAST--CONTINUED
R.I., CONN., N.J., DEL., MD., VA., CENTRAL AND SOUTHERN N.Y., AND EASTERN PA.

PREMIUM-PRICE GASOLINE

ITEM	SAMPLES	GR., ASTM D287 API	SULF, ASTM D1266 WT %	GUM, ASTM D381 MG	LEAD, ASTM D526 G/GAL	OCTANE NUMBER RES, ASTM D908	OCTANE NUMBER MOT, ASTM D357	OCTANE NUMBER R+M --- 2	RVP, ASTM D323 LB	DISTILLATION, ASTM D86 TEMPERATURE, F (CORRECTED TO 760 MM HG) IBP	PERCENT EVAPORATED 5	10	20	30	50	70	90	95	EP	RES %	LOSS %
45	18	54.2	0.005	1	0.16	100.7	90.6	95.7	12.2	82	95	106	132	163	225	256	309	337	382	0.9	2.5
46	17	60.6	.006	1	2.35	99.9	92.8	96.4	13.1	79	89	100	121	146	207	263	325	356	392	1.0	2.5
47	17	62.5	.028	1	2.82	100.7	92.1	96.4	13.1	81	93	106	127	153	210	257	331	363	408	1.0	2.7
48	9	63.1	-	-	2.92	100.6	92.2	96.4	13.7	76	86	99	120	146	204	250	328	363	405	.7	2.5
49	24	67.9	.009	1	1.64	100.3	92.4	96.4	13.9	77	85	98	116	137	189	237	296	326	372	1.0	2.9
50	26	62.9	.007	1	2.36	100.0	92.1	96.1	12.5	80	90	101	122	145	207	259	320	353	396	1.0	2.3
51	9	65.6	.021	1	2.51	100.0	93.1	96.6	12.3	83	93	103	120	142	204	249	318	356	405	1.1	2.5
52	17	61.4	.022	0	2.62	100.1	92.2	96.2	12.5	78	89	103	126	157	218	268	330	359	394	1.0	2.4
53	22	60.9	.011	1	2.48	100.1	92.2	96.2	13.0	79	89	103	123	147	208	261	323	356	396	1.0	2.5
54	9	61.0	.013	1	2.50	100.2	91.8	96.0	13.6	78	87	101	122	149	204	256	318	345	385	1.0	3.3
55	18	61.4	.012	1	2.75	100.2	91.7	96.0	12.9	80	90	103	123	148	208	261	332	364	406	1.0	2.6
56	25	63.0	.018	1	2.59	100.1	91.8	96.0	12.3	80	92	106	129	156	210	253	314	346	386	1.0	2.1
57	10	60.0	.036	2	3.30	101.1	91.3	96.2	13.4	77	90	104	126	152	206	255	318	341	375	.8	3.2
58	3	61.9	-	-	2.79	100.3	92.0	96.2	11.2	82	98	110	131	154	212	259	325	354	396	.8	1.2
59	7	57.9	.001	1	3.21	101.2	91.6	96.4	12.9	82	96	109	130	155	218	273	329	358	387	.9	1.6
60	3	63.6	-	-	2.97	100.7	92.6	96.7	13.0	76	88	102	123	151	206	254	332	368	406	.8	1.7
61	9	61.6	-	-	2.64	100.0	91.8	95.9	13.4	77	86	104	130	158	212	257	317	347	385	.8	2.7
62	4	61.4	.012	1	2.77	99.9	91.4	95.7	12.8	84	94	106	130	157	212	257	314	338	387	1.0	4.0
AVERAGE		61.7	.014	1	2.52	100.3	92.0	96.2	12.9	80	91	104	125	151	209	257	321	352	392	.9	2.5
SAMPLES	247																				

TABLE 3. - MOTOR GASOLINE SURVEY, WINTER 1970-71
AVERAGE DATA FOR DIFFERENT BRANDS--CONTINUED

DIST. 3 SOUTHEAST
N.C., S.C., GA., FLA., ALA., AND EASTERN TENN.

REGULAR-PRICE GASOLINE

ITEM	SAMPLES	GR., ASTM D287 API	SULF, ASTM D1266 WT %	GUM, ASTM D381 MG	LEAD, ASTM D526 G/GAL	OCTANE NUMBER RES, ASTM D908	OCTANE NUMBER MOT, ASTM D357	OCTANE NUMBER R+M --- 2	RVP, ASTM D323 LB	DISTILLATION, ASTM D86 TEMPERATURE, F (CORRECTED TO 760 MM HG) IBP	PERCENT EVAPORATED 5	10	20	30	50	70	90	95	EP	RES LOSS %	%
63	18	63.7	0.021	1	2.17	94.8	86.2	90.5	10.8	87	100	112	128	145	185	247	335	370	409	1.1	1.5
64	4	61.5	.071	2	2.67	94.7	86.8	90.8	11.4	84	96	109	131	153	197	252	339	375	410	1.0	2.1
65	3	62.5	.026	-	2.32	94.5	87.2	90.9	11.7	82	95	109	133	158	207	259	331	362	410	.7	1.3
66	7	61.8	.040	0	2.15	94.4	86.7	90.6	11.8	89	101	113	134	158	207	263	347	384	419	1.1	1.8
67	13	62.5	.028	1	1.56	94.8	86.5	90.7	12.3	82	93	104	121	142	193	261	340	367	400	1.1	2.0
68	21	61.7	.064	1	2.67	94.5	86.9	90.7	10.9	86	100	113	132	155	207	267	341	375	413	1.1	1.6
69	11	65.7	.019	2	2.30	94.4	88.1	91.3	11.2	88	99	111	127	145	188	250	328	355	396	1.0	2.2
70	20	61.9	.025	1	2.03	94.6	86.5	90.6	11.8	84	96	110	131	155	205	263	353	385	411	1.1	1.9
71	6	62.5	.030	-	2.02	94.7	87.0	90.9	12.2	85	94	108	130	155	203	255	338	373	419	.9	1.4
72	14	63.5	.027	1	2.36	94.0	87.5	90.8	11.9	84	95	108	128	148	194	250	336	375	413	1.0	2.1
73	2	60.5	.018	2	2.15	96.5	88.0	92.3	10.4	87	99	114	136	158	209	266	346	379	417	1.0	2.0
74	27	61.9	.030	1	2.04	94.2	86.4	90.3	11.4	86	97	113	137	163	215	269	336	364	396	1.1	2.3
75	8	62.7	.046	2	2.37	94.4	86.6	90.5	11.5	82	94	106	126	148	200	263	345	379	420	1.0	1.4
76	1	63.1	.071	2	2.29	94.7	86.1	90.4	11.1	88	100	114	134	157	207	260	347	380	406	1.0	2.0
77	3	60.5	.025	-	1.61	95.4	87.1	91.3	12.0	84	99	109	128	150	204	267	325	350	406	.8	1.2
78	3	62.7	-	-	1.79	94.5	86.9	90.7	12.3	84	92	106	128	154	202	256	338	376	422	.9	1.6
79	3	64.0	.041	-	2.45	94.1	87.5	90.8	12.0	82	95	105	124	142	184	241	325	370	420	1.0	1.0
80	1	61.0	.025	0	2.70	95.6	88.4	92.0	11.4	89	99	117	140	167	209	243	314	343	382	1.0	3.0
AVERAGE		62.4	.036	1	2.20	94.7	87.0	90.9	11.6	85	97	110	130	153	201	257	337	370	409	1.0	1.8
SAMPLES	165																				

TABLE 3. - MOTOR GASOLINE SURVEY, WINTER 1970-71
AVERAGE DATA FOR DIFFERENT BRANDS--CONTINUED

DIST. 3 SOUTHEAST--CONTINUED
N.C., S.C., GA., FLA., ALA., AND EASTERN TENN.

PREMIUM-PRICE GASOLINE

ITEM	SAMPLES	GR., ASTM D287 API	SULF, ASTM D1266 WT %	GUM, ASTM D381 MG	LEAD, ASTM D526 G/GAL	OCTANE NUMBER RES, ASTM D908	OCTANE NUMBER MOT, ASTM D357	OCTANE NUMBER R+M --- 2	RVP, ASTM D323 LB	DISTILLATION, ASTM D86 TEMPERATURE, F (CORRECTED TO 760 MM HG) IBP	PERCENT EVAPORATED 5	10	20	30	50	70	90	95	EP	RES %	LOSS %
81	18	54.3	0.001	2	0.01	101.2	90.9	96.1	11.5	86	97	114	145	185	234	261	312	336	367	1.0	2.4
82	4	63.0	.019	2	2.87	100.1	92.7	96.4	11.4	82	96	108	128	151	207	256	320	348	402	1.0	1.8
83	3	62.1	.015	-	2.68	100.0	92.3	96.2	12.4	84	104	114	137	164	215	259	328	363	416	.8	1.2
84	7	62.4	.016	0	2.87	100.2	92.1	96.2	12.3	82	93	106	128	155	213	259	334	363	411	.9	2.1
85	13	66.2	.009	1	1.93	100.1	92.7	96.4	12.2	84	94	105	122	142	193	237	292	323	363	1.0	2.1
86	21	63.5	.014	1	2.83	100.0	92.2	96.1	11.3	83	97	109	129	150	206	251	311	341	382	1.0	1.5
87	11	64.0	.009	1	2.49	99.8	93.0	96.4	11.2	88	98	108	125	143	210	270	318	345	388	1.1	1.9
88	20	61.2	.004	0	2.48	100.2	92.3	96.3	11.9	83	94	110	133	161	217	263	324	354	393	1.0	2.5
89	6	62.0	.003	-	2.60	100.1	91.8	96.0	12.2	85	98	111	136	163	214	258	327	357	408	1.0	1.5
90	15	62.2	.007	2	2.71	100.3	92.4	96.4	11.9	85	96	108	127	148	196	247	327	355	398	1.0	2.0
91	3	59.9	.017	1	2.94	100.4	91.2	95.8	10.1	86	97	112	134	160	213	263	330	362	410	1.0	2.0
92	27	64.1	.010	1	2.71	99.9	92.1	96.0	11.4	85	97	113	136	161	209	249	303	333	373	1.0	2.4
93	7	63.1	.026	-	3.16	100.2	92.2	96.2	12.1	82	92	104	122	145	200	255	324	355	399	1.0	1.7
94	1	61.1	.029	1	2.79	100.5	91.6	96.1	10.4	78	94	112	139	166	218	261	335	343	410	1.0	2.0
95	3	59.0	.015	-	2.35	101.9	92.1	97.0	11.9	85	102	119	153	186	228	253	298	337	386	1.0	1.0
96	3	61.4	-	-	2.45	100.0	91.8	95.9	12.2	81	89	104	127	155	215	258	317	344	391	.8	3.2
97	3	60.6	.026	-	3.18	99.9	92.4	96.2	11.7	81	94	104	121	145	200	255	333	373	418	.9	1.1
98	1	60.2	.011	0	2.89	99.4	92.0	95.7	11.2	86	100	114	138	168	225	265	314	337	379	1.0	2.0
AVERAGE		61.7	.014	1	2.55	100.2	92.1	96.2	11.6	84	96	110	132	158	212	257	319	348	394	1.0	1.9
SAMPLES	166																				

TABLE 3. - MOTOR GASOLINE SURVEY, WINTER 1970-71
AVERAGE DATA FOR DIFFERENT BRANDS--CONTINUED

DIST. 4 APPALACHIAN
OHIO, W. WA., WESTERN N.Y., WESTERN PA., EASTERN KY., AND PART OF MD.

REGULAR-PRICE GASOLINE

ITEM	SAMPLES	GR., ASTM D287 API	SULF, ASTM D1266 WT %	GUM, ASTM D381 MG	LEAD, ASTM D526 G/GAL	OCTANE NUMBER RES, ASTM D908	OCTANE NUMBER MOT, ASTM D357	OCTANE NUMBER R+M --- 2	RVP, ASTM D323 LB	DISTILLATION, ASTM D86 TEMPERATURE, F (CORRECTED TO 760 MM HG) IBP	PERCENT EVAPORATED 5	10	20	30	50	70	90	95	EP	RES %	LOSS %
99	8	62.8	0.031	1	2.02	94.5	86.3	90.4	11.2	83	95	106	126	144	185	243	331	363	414	0.8	2.0
100	10	63.7	.019	1	2.22	94.1	87.0	90.6	12.6	81	93	105	125	146	192	252	344	381	419	.9	1.9
101	11	62.5	.038	1	2.01	94.8	86.6	90.7	13.4	83	92	101	123	146	196	252	334	368	403	.9	3.5
102	3	62.0	.012	-	1.62	94.4	86.8	90.6	14.0	78	89	103	124	148	199	272	352	382	418	.9	2.6
103	17	62.7	.027	0	1.99	94.9	86.2	90.6	13.5	81	91	101	119	140	194	261	343	375	408	1.1	3.2
104	19	60.8	.014	1	1.68	94.5	86.8	90.7	12.4	82	92	104	126	150	203	268	347	379	419	1.1	2.9
105	6	63.0	.027	1	2.15	94.9	87.2	91.1	13.3	83	95	105	126	149	201	267	350	382	419	.9	3.2
106	6	64.8	-	-	-	95.0	87.1	91.1	12.8	88	97	106	121	141	191	254	338	370	413	1.2	2.5
107	14	62.7	.033	1	1.66	94.8	86.7	90.8	12.3	83	96	108	126	147	194	255	343	381	415	1.1	2.0
108	15	62.1	.025	0	1.81	94.1	86.2	90.2	12.3	83	95	107	127	149	201	261	345	380	418	1.0	2.5
109	3	64.6	-	-	2.85	94.2	87.5	90.9	11.0	82	96	110	130	152	198	256	342	374	410	.9	2.1
110	12	61.2	.011	1	1.06	95.6	86.5	91.1	13.6	81	89	101	122	146	199	256	329	355	393	.9	3.5
111	11	62.3	.014	2	1.48	94.4	86.8	90.6	14.2	78	87	99	118	141	200	266	352	381	418	1.0	3.6
112	22	63.8	.015	1	2.20	94.3	86.6	90.5	11.7	84	98	111	128	147	190	246	334	370	410	1.1	2.0
113	9	62.6	.045	1	1.88	94.7	86.4	90.6	12.4	85	96	108	128	149	197	254	340	373	419	.9	2.1
114	3	62.2	-	-	1.97	94.4	86.3	90.4	11.1	76	97	110	130	150	194	252	344	380	404	.9	1.1
AVERAGE		62.7	.024	1	1.86	94.6	86.7	90.7	12.6	82	94	105	125	147	196	257	342	375	413	1.0	2.5
SAMPLES	169																				

TABLE 3. - MOTOR GASOLINE SURVEY, WINTER 1970-71
AVERAGE DATA FOR DIFFERENT BRANDS--CONTINUED

DIST. 4 APPALACHIAN--CONTINUED
OHIO, W. WA., WESTERN N.Y., WESTERN PA., EASTERN KY., AND PART OF MD.

PREMIUM-PRICE GASOLINE

ITEM	SAMPLES	GR., ASTM D287 API	SULF, ASTM D1266 WT %	GUM, ASTM D381 MG	LEAD, ASTM D526 G/GAL	OCTANE NUMBER RES, ASTM D908	OCTANE NUMBER MOT, ASTM D357	OCTANE NUMBER R+M --- 2	RVP, ASTM D323 LB	DISTILLATION, ASTM D86 TEMPERATURE, F (CORRECTED TO 760 MM HG) IBP	5	10	20	30	50	70	90	95	EP	RES %	LOSS %
115	6	56.8	0.008	1	.00	100.8	90.8	95.8	12.2	83	97	111	138	173	225	251	306	333	367	0.9	2.8
116	10	63.0	.014	0	2.56	100.0	92.7	96.4	13.0	79	91	105	128	153	203	249	324	358	414	.9	2.3
117	11	63.9	.008	1	2.64	99.8	93.0	96.4	13.8	80	92	103	124	150	206	252	315	344	395	.9	2.9
118	3	64.1	-	-	2.84	100.1	92.9	96.5	14.0	72	84	100	121	147	206	256	334	368	412	1.0	3.0
119	15	66.8	.020	1	2.12	100.3	92.7	96.5	13.5	80	89	101	120	142	192	237	308	343	393	.9	2.8
120	19	66.3	.010	1	2.43	100.2	93.0	96.6	12.6	81	94	107	127	151	198	235	304	340	393	1.0	2.2
121	6	65.9	.006	0	2.76	100.3	93.6	97.0	14.0	77	87	102	123	152	209	247	321	355	399	.9	3.8
122	6	65.2	-	-	-	99.9	92.4	96.2	12.9	89	96	106	122	145	202	249	312	345	393	1.1	2.6
123	14	61.7	.021	2	2.04	100.1	92.1	96.1	12.6	80	91	106	127	152	202	244	322	362	407	1.0	2.7
124	15	62.7	.014	0	2.51	100.0	93.0	96.5	12.8	80	91	106	129	155	206	245	312	344	390	1.0	2.5
125	3	63.0	-	-	3.00	100.4	92.2	96.3	11.8	80	92	108	130	152	198	254	336	366	396	1.0	2.0
126	12	62.5	.004	1	1.88	100.0	92.4	96.2	14.7	79	83	97	119	145	207	264	326	349	390	.8	5.1
127	13	60.5	.009	1	1.99	99.8	91.7	95.8	13.6	79	89	101	126	153	211	254	315	346	396	.8	3.8
128	22	61.4	.016	3	2.56	100.3	91.6	96.0	12.1	82	96	109	130	152	199	242	314	350	401	1.0	2.2
129	9	62.8	.022	2	2.67	100.1	92.3	96.2	12.6	80	90	104	128	157	209	253	330	363	406	1.0	3.1
130	3	60.9	.023	-	2.06	100.3	91.4	95.9	12.2	80	96	108	128	149	192	234	324	358	410	.8	1.2
AVERAGE		63.0	.013	1	2.43	100.2	92.4	96.3	13.0	80	91	105	126	152	204	248	319	352	398	.9	2.8
SAMPLES	167																				

TABLE 3. - MOTOR GASOLINE SURVEY, WINTER 1970-71
AVERAGE DATA FOR DIFFERENT BRANDS--CONTINUED

DIST. 5 MICHIGAN

REGULAR-PRICE GASOLINE

ITEM	SAMPLES	GR., ASTM D287 API	SULF, ASTM D1266 WT %	GUM, ASTM D381 MG	LEAD, ASTM D526 G/GAL	OCTANE NUMBER RES, ASTM D908	OCTANE NUMBER MOT, ASTM D357	OCTANE NUMBER R+M --- 2	RVP, ASTM D323 LB	DISTILLATION, ASTM D86 TEMPERATURE, F (CORRECTED TO 760 MM HG) IBP	PERCENT EVAPORATED 5	10	20	30	50	70	90	95	EP	RES %	LOSS %
131	13	63.1	0.081	2	2.78	95.5	86.0	90.8	12.1	84	95	108	128	151	198	247	314	338	379	0.9	2.5
132	5	64.4	.058	3	2.25	95.0	86.8	90.9	13.8	81	90	100	120	142	194	253	344	379	436	.8	3.4
133	3	-	-	-	-	95.1	86.6	90.9	12.3	82	91	104	125	148	198	253	341	380	415	1.2	2.4
134	7	62.0	.020	3	1.63	94.6	86.9	90.8	13.0	81	90	104	126	150	203	258	337	370	409	.9	2.2
135	1	64.5	.050	3	1.92	95.3	87.0	91.2	14.4	79	84	96	114	137	193	253	341	375	428	.5	3.0
136	6	64.5	.026	3	2.54	94.9	87.6	91.3	14.5	80	89	99	118	141	198	272	355	389	431	.8	3.8
137	1	64.5	.032	1	3.02	94.9	88.2	91.6	12.6	77	81	97	117	140	197	270	358	390	428	1.0	4.0
138	12	63.3	.043	1	1.17	94.9	86.6	90.8	12.4	82	93	105	124	145	197	257	340	377	417	.9	2.2
139	1	62.3	.060	4	1.80	94.7	86.1	90.4	11.7	81	90	102	120	144	196	257	344	379	435	.4	2.1
140	12	64.0	.026	0	2.43	93.9	87.2	90.6	12.9	83	91	104	124	147	197	251	340	372	412	.9	2.9
141	5	62.1	.016	1	1.07	95.3	86.3	90.8	13.3	82	88	100	120	144	197	254	329	356	407	.8	3.5
142	9	62.2	.017	2	1.32	94.6	86.9	90.8	14.4	80	87	100	121	144	201	270	353	383	421	.9	3.9
143	18	61.5	.028	1	2.25	94.8	86.3	90.6	12.0	85	94	108	130	153	205	259	324	351	394	.9	2.5
144	5	62.3	.077	1	1.64	94.9	86.1	90.5	12.8	81	90	104	124	147	199	256	338	374	416	.9	2.4
145	1	64.0	.010	2	2.03	95.1	87.7	91.4	12.8	79	83	99	119	143	196	254	337	373	416	1.0	4.0
146	1	64.2	.026	1	3.14	95.2	87.8	91.5	13.8	78	82	99	120	142	199	271	354	387	421	1.0	4.0
147	1	63.4	.051	1	2.19	95.1	86.5	90.8	12.7	79	83	100	120	142	193	250	341	378	422	1.0	4.0
AVERAGE		63.3	.039	2	2.07	94.9	86.9	90.9	13.0	81	88	102	122	145	198	258	341	374	417	.9	3.1
SAMPLES	101																				

TABLE 3. - MOTOR GASOLINE SURVEY, WINTER 1970-71
AVERAGE DATA FOR DIFFERENT BRANDS--CONTINUED

DIST. 5 MICHIGAN--CONTINUED

PREMIUM-PRICE GASOLINE

ITEM	SAMPLES	GR., ASTM D287 API	SULF, ASTM D1266 WT %	GUM, ASTM D381 MG	LEAD, ASTM D526 G/GAL	OCTANE NUMBER RES, ASTM D908	OCTANE NUMBER MOT, ASTM D357	OCTANE NUMBER R+M --- 2	RVP, ASTM D323 LB	DISTILLATION, ASTM D86 TEMPERATURE, F (CORRECTED TO 760 MM HG) IBP	PERCENT EVAPORATED 5	10	20	30	50	70	90	95	EP	RES %	LOSS %
148	11	62.7	0.021	3	2.84	99.9	92.2	96.1	12.0	83	92	106	128	152	200	239	298	324	372	0.9	3.0
149	5	64.6	.007	2	2.75	100.0	93.0	96.5	14.3	81	92	99	121	150	208	249	320	350	403	.6	4.5
150	3	-	-	-	-	99.9	93.2	96.6	12.1	82	89	106	130	157	208	246	314	350	400	1.0	3.1
151	2	61.2	.009	2	2.99	99.3	92.9	96.1	13.1	84	92	103	126	155	214	263	339	373	434	.8	4.0
152	5	68.0	.020	2	1.93	100.1	93.2	96.7	12.6	81	94	109	133	161	208	239	307	348	397	.8	2.1
153	1	64.8	.010	2	2.62	99.0	92.1	95.6	12.1	80	85	101	123	153	208	252	318	349	402	.4	3.6
154	5	63.7	.024	2	3.03	99.9	92.8	96.4	14.4	80	90	98	124	157	220	265	342	381	424	.8	4.9
155	1	66.0	.027	2	2.51	100.4	92.8	96.6	14.0	76	83	97	120	149	212	249	325	362	410	1.0	4.0
156	10	61.9	.029	1	2.02	99.9	92.4	96.2	12.7	81	89	103	127	156	212	252	327	363	409	1.0	3.1
157	1	65.0	.050	4	2.21	99.5	91.1	95.3	13.4	80	87	101	121	155	208	243	328	368	430	.3	2.7
158	10	62.4	.006	1	2.34	99.4	92.5	96.0	12.4	83	91	106	131	157	205	248	314	337	391	1.0	3.1
159	5	63.8	.007	2	1.83	99.9	92.8	96.4	14.4	81	89	101	124	152	208	253	323	357	401	.7	4.4
160	7	60.9	.008	2	1.86	99.6	91.8	95.7	14.5	80	86	97	122	151	210	254	319	350	401	.9	5.0
161	17	60.7	.014	2	2.91	99.5	91.7	95.6	12.0	84	92	109	133	159	203	236	296	337	392	1.0	3.1
162	5	64.6	.054	1	2.44	99.9	92.0	96.0	13.2	78	86	103	127	158	208	245	319	356	412	.7	3.0
163	1	65.5	.029	2	2.41	100.3	94.2	97.3	12.0	72	78	107	133	164	214	251	327	360	410	1.0	4.0
164	1	66.0	.028	1	2.59	100.3	92.6	96.5	13.5	80	-	100	123	150	211	250	326	-	414	1.0	5.0
165	1	66.0	.011	1	2.94	99.8	93.5	96.7	13.5	76	82	100	122	150	200	240	310	341	380	1.0	4.0
AVERAGE		64.0	.021	2	2.48	99.8	92.6	96.2	13.1	80	88	103	126	155	209	249	320	353	405	.8	3.7
SAMPLES	91																				

TABLE 3. - MOTOR GASOLINE SURVEY, WINTER 1970-71
AVERAGE DATA FOR DIFFERENT BRANDS--CONTINUED

DIST. 6 NORTH ILLINOIS
NORTHERN IND., NORTHERN ILL., EASTERN IOWA, AND WIS.

REGULAR-PRICE GASOLINE

ITEM	SAMPLES	GR., ASTM D287 API	SULF, ASTM D1266 WT %	GUM, ASTM D381 MG	LEAD, ASTM D526 G/GAL	OCTANE NUMBER RES, ASTM D908	OCTANE NUMBER MOT, ASTM D357	OCTANE NUMBER R+M --- 2	RVP, ASTM D323 LB	DISTILLATION, ASTM D86 TEMPERATURE, F (CORRECTED TO 760 MM HG) IBP	PERCENT EVAPORATED 5	10	20	30	50	70	90	95	EP	RES LOSS % %
166	10	62.5	0.043	-	2.13	95.1	86.4	90.8	12.5	86	94	106	126	148	196	249	325	355	390	1.0 2.4
167	7	63.4	.021	-	2.59	94.7	86.7	90.7	13.3	82	90	102	121	145	195	255	346	385	414	1.1 2.9
168	4	62.4	.055	2	2.37	94.8	87.4	91.1	13.5	79	87	100	121	145	200	259	336	369	416	1.0 3.3
169	3	62.8	.072	-	2.05	94.9	86.6	90.8	13.3	79	88	96	114	135	185	246	329	362	404	1.0 2.5
170	3	62.8	.051	-	1.62	95.2	86.3	90.8	13.2	80	89	97	113	136	190	250	334	366	400	1.1 2.9
171	3	61.1	.017	-	1.41	94.8	87.5	91.2	13.1	78	88	102	123	148	209	269	341	373	410	.9 2.6
172	6	66.2	-	-	1.68	95.0	86.9	91.0	13.0	83	91	101	118	136	184	238	319	359	401	1.2 2.3
173	11	63.1	.055	-	.99	94.9	86.5	90.7	12.9	84	92	102	120	140	193	257	341	380	416	1.0 2.6
174	10	64.4	.032	-	2.33	94.1	87.4	90.8	12.6	85	93	105	123	144	192	246	321	351	386	.8 2.5
175	1	63.9	.052	-	2.48	94.0	86.7	90.4	12.7	88	103	111	130	153	205	273	368	409	409	1.0 4.0
176	7	62.6	.027	-	2.43	94.8	86.2	90.5	13.0	84	93	106	127	151	205	261	321	351	384	1.0 3.0
177	3	63.2	.061	-	1.76	95.1	86.4	90.8	13.8	78	86	98	117	139	189	252	346	382	428	1.1 2.4
AVERAGE		63.2	.044	2	1.99	94.8	86.8	90.8	13.1	82	91	102	121	143	195	255	336	370	405	1.0 2.8
SAMPLES	68																			

TABLE 3. - MOTOR GASOLINE SURVEY, WINTER 1970-71
AVERAGE DATA FOR DIFFERENT BRANDS--CONTINUED

DIST. 6 NORTH ILLINOIS--CONTINUED
NORTHERN IND., NORTHERN ILL., EASTERN IOWA, AND WIS.

PREMIUM-PRICE GASOLINE

ITEM	SAMPLES	GR., ASTM D287 API	SULF, ASTM D1266 WT %	GUM, ASTM D381 MG	LEAD, ASTM D526 G/GAL	OCTANE NUMBER RES, ASTM D908	OCTANE NUMBER MOT, ASTM D357	OCTANE NUMBER R+M --- 2	RVP, ASTM D323 LB	DISTILLATION, ASTM D86 TEMPERATURE, F (CORRECTED TO 760 MM HG) IBP	PERCENT EVAPORATED 5	10	20	30	50	70	90	95	EP	RES %	LOSS %
178	11	63.2	0.008	-	2.52	99.7	91.9	95.8	12.2	85	96	110	131	154	203	244	307	340	376	1.0	2.7
179	7	64.0	.016	-	2.70	99.6	92.2	95.9	13.2	83	91	105	128	154	207	250	325	348	398	1.1	3.4
180	4	66.4	.036	1	2.60	99.9	93.1	96.5	13.6	80	87	103	126	155	203	247	322	354	397	1.0	3.3
181	3	65.5	.034	-	2.42	99.9	92.4	96.2	13.2	79	88	102	128	159	210	247	324	357	400	1.0	2.5
182	3	64.7	.038	-	2.54	100.1	92.2	96.2	13.2	78	88	102	129	159	207	246	325	362	401	.9	2.6
183	3	63.5	.018	-	2.72	99.8	92.6	96.2	12.8	80	88	102	124	152	208	245	314	347	401	1.0	2.5
184	5	63.8	-	-	2.91	99.6	92.6	96.1	12.9	83	90	100	120	142	198	250	330	364	405	1.2	2.8
185	10	61.4	.039	-	2.01	99.9	92.1	96.0	13.0	84	91	104	128	158	214	254	331	375	403	1.1	3.1
186	10	62.4	.010	-	2.78	98.9	92.5	95.7	12.3	85	94	109	134	164	214	254	326	360	390	1.0	3.1
187	1	59.1	.009	-	3.11	99.0	91.9	95.5	11.6	91	110	121	146	175	227	277	338	384	401	1.0	2.0
188	10	62.9	.036	-	2.64	99.7	91.8	95.8	12.8	85	93	108	132	157	199	234	292	333	377	1.0	3.1
189	3	64.5	.033	-	2.68	99.7	91.8	95.8	14.4	78	84	94	114	142	197	242	322	358	414	1.0	3.0
AVERAGE		63.5	.025	1	2.64	99.7	92.3	96.0	12.9	83	92	105	128	156	207	249	321	357	397	1.0	2.8
SAMPLES	70																				

TABLE 3. - MOTOR GASOLINE SURVEY, WINTER 1970-71
AVERAGE DATA FOR DIFFERENT BRANDS--CONTINUED

DIST. 7 CENTRAL MISSISSIPPI
WESTERN KY., SOUTHERN IND., SOUTHERN ILL., AND EASTERN MO.

REGULAR-PRICE GASOLINE

ITEM	SAMPLES	GR., ASTM D287 API	SULF, ASTM D1266 WT %	GUM, ASTM D381 MG	LEAD, ASTM D526 G/GAL	OCTANE NUMBER RES, ASTM D908	OCTANE NUMBER MOT, ASTM D357	OCTANE NUMBER R+M --- 2	RVP, ASTM D323 LB	DISTILLATION, ASTM D86 TEMPERATURE, F (CORRECTED TO 760 MM HG) IBP	PERCENT EVAPORATED 5	10	20	30	50	70	90	95	EP	RES %	LOSS %
190	13	63.1	0.065	2	2.39	95.0	86.8	90.9	11.9	80	94	107	127	148	195	248	326	360	387	1.0	2.1
191	2	63.0	-	-	2.93	94.2	87.0	90.6	13.2	76	92	104	128	155	212	262	343	376	410	1.0	2.5
192	9	63.2	-	-	2.60	94.2	87.3	90.8	11.8	80	93	106	125	148	197	254	343	385	434	1.0	1.8
193	3	62.5	.028	-	2.52	94.3	86.9	90.6	12.1	80	98	112	132	154	200	256	334	364	390	.9	2.1
194	2	62.3	-	-	2.43	93.5	86.7	90.1	-	-	-	-	-	-	-	-	-	-	-	-	-
195	3	63.0	-	-	2.45	93.9	87.1	90.5	12.3	80	91	103	121	141	194	261	348	382	418	1.0	2.0
196	5	64.7	.047	-	1.75	94.9	86.8	90.9	14.2	75	87	98	117	138	192	255	339	374	404	.9	1.9
197	9	62.6	.057	-	2.17	94.4	87.1	90.8	12.5	77	92	105	125	147	200	261	342	373	407	.9	1.6
198	3	63.8	.025	-	1.57	94.8	87.2	91.0	12.0	78	96	108	130	152	198	248	324	358	398	.8	1.2
199	7	60.4	.032	-	1.49	94.9	87.6	91.3	11.9	78	90	104	127	152	213	274	347	380	419	.9	2.1
200	5	67.7	-	-	1.29	94.6	87.2	90.9	12.8	85	94	102	116	132	178	239	322	359	410	1.2	2.1
201	3	64.3	.039	-	2.71	94.5	87.4	91.0	12.8	76	90	105	129	152	198	240	312	350	384	.5	1.5
202	13	63.1	.054	2	1.09	94.5	86.8	90.7	12.7	82	93	104	123	145	196	257	343	377	415	1.0	2.0
203	3	62.6	-	-	2.72	94.1	87.5	90.8	13.1	79	90	101	119	144	196	258	352	388	423	1.0	2.0
204	2	63.8	-	-	2.66	94.8	87.7	91.3	11.2	80	96	110	132	150	192	252	348	390	416	1.0	1.0
205	4	64.1	-	-	2.48	93.7	87.4	90.6	12.1	76	94	108	132	156	208	266	346	378	416	.8	1.2
206	7	62.1	.023	-	1.81	94.6	86.6	90.6	12.9	78	96	107	130	157	211	264	344	377	407	1.0	1.8
207	14	61.6	-	-	2.31	93.9	86.5	90.2	12.0	82	94	109	135	163	218	278	344	367	399	1.0	2.4
208	3	60.9	.026	-	1.47	95.2	87.4	91.3	13.9	76	86	98	118	145	205	270	346	376	408	.9	1.6
AVERAGE		63.1	.040	2	2.15	94.4	87.1	90.8	12.5	79	93	105	126	149	200	258	339	373	408	.9	1.8
SAMPLES	110																				

TABLE 3. - MOTOR GASOLINE SURVEY, WINTER 1970-71
AVERAGE DATA FOR DIFFERENT BRANDS--CONTINUED

DIST. 7 CENTRAL MISSISSIPPI--CONTINUED
WESTERN KY., SOUTHERN IND., SOUTHERN ILL., AND EASTERN MO.

PREMIUM-PRICE GASOLINE

ITEM	SAMPLES	GR., ASTM D287 API	SULF, ASTM D1266 WT %	GUM, ASTM D381 MG	LEAD, ASTM D526 G/GAL	OCTANE NUMBER RES, ASTM D908	OCTANE NUMBER MOT, ASTM D357	OCTANE NUMBER R+M --- 2	RVP, ASTM D323 LB	DISTILLATION, ASTM D86 TEMPERATURE, F (CORRECTED TO 760 MM HG) IBP	PERCENT EVAPORATED 5	10	20	30	50	70	90	95	EP	RES %	LOSS %
209	13	63.1	0.025	4	2.36	99.6	91.9	95.8	12.1	80	94	107	129	153	204	246	312	347	380	1.0	2.4
210	2	57.3	-	-	3.26	101.1	92.5	96.8	12.5	74	89	109	140	172	226	273	346	378	420	1.0	2.0
211	9	61.3	-	-	2.88	98.6	91.7	95.2	11.7	80	95	109	131	156	206	252	336	378	422	1.0	1.8
212	2	63.8	-	-	3.18	100.3	92.6	96.5	12.0	74	87	104	132	160	210	246	310	338	390	.7	2.3
213	3	63.0	-	-	2.95	99.8	92.9	96.4	13.1	79	92	102	123	151	208	249	312	338	385	.9	2.1
214	3	65.2	-	-	2.76	99.4	92.6	96.0	12.3	81	92	105	127	158	209	241	315	351	403	1.1	1.9
215	5	65.1	.026	-	2.40	99.9	92.8	96.4	13.4	74	89	101	121	144	201	246	312	343	387	.8	1.2
216	9	63.6	.029	-	2.82	100.0	92.9	96.5	12.8	79	93	105	125	149	202	244	305	334	388	.8	1.7
217	3	69.2	.035	-	2.61	99.8	93.3	96.6	12.6	76	90	104	128	150	198	234	314	356	406	.8	2.2
218	8	64.7	.018	-	2.12	100.4	93.8	97.1	12.4	78	92	109	134	164	208	240	316	353	394	.9	2.1
219	5	67.4	-	-	1.99	99.8	92.7	96.3	13.0	83	91	100	114	133	190	243	322	359	409	1.2	2.6
220	3	64.6	.036	-	3.71	100.5	92.6	96.6	11.2	80	101	114	138	170	213	250	313	342	380	.6	1.4
221	12	61.8	.029	-	1.91	100.0	92.5	96.3	13.0	76	86	100	121	151	211	252	325	363	409	1.0	2.1
222	3	62.4	-	-	2.85	99.5	92.8	96.2	13.6	80	90	102	126	159	216	267	340	370	408	1.0	2.5
223	2	62.2	-	-	3.00	100.4	93.2	96.8	12.4	76	90	104	126	154	216	272	336	364	410	1.0	1.5
224	3	63.2	-	-	2.87	100.4	92.6	96.5	13.5	76	92	105	126	149	198	246	334	360	390	.9	1.1
225	6	60.4	.014	-	2.29	100.2	92.1	96.2	13.1	77	92	106	134	165	217	256	324	360	404	.9	2.1
226	15	61.3	.022	-	2.76	99.9	91.3	95.6	12.5	80	91	106	129	154	206	250	302	326	360	.9	2.4
227	3	66.3	.018	-	2.33	100.4	93.6	97.0	14.1	82	95	108	131	161	216	260	308	338	388	.9	1.1
AVERAGE		63.5	.025	4	2.69	100.0	92.7	96.4	12.7	78	92	105	128	155	208	251	320	353	398	.9	1.9
SAMPLES	109																				

TABLE 3. - MOTOR GASOLINE SURVEY, WINTER 1970-71
AVERAGE DATA FOR DIFFERENT BRANDS--CONTINUED

DIST. 8 LOWER MISSISSIPPI
MISS., LA., EASTERN AND SOUTHERN ARK., AND WESTERN TENN.

REGULAR-PRICE GASOLINE

ITEM	SAMPLES	GR., ASTM D287 API	SULF, ASTM D1266 WT %	GUM, ASTM D381 MG	LEAD, ASTM D526 G/GAL	OCTANE NUMBER RES, ASTM D908	OCTANE NUMBER MOT, ASTM D357	OCTANE NUMBER R+M --- 2	RVP, ASTM D323 LB	DISTILLATION, ASTM D86 TEMPERATURE, F (CORRECTED TO 760 MM HG) IBP	PERCENT EVAPORATED 5	10	20	30	50	70	90	95	EP	RES %	LOSS %
228	14	63.2	0.042	1	2.25	94.6	86.6	90.6	10.9	87	102	112	128	146	189	245	333	365	401	1.0	1.7
229	3	63.2	-	-	3.00	93.8	87.5	90.7	11.0	86	99	109	128	149	193	247	341	377	417	.9	1.1
230	6	63.5	-	-	3.30	92.9	87.1	90.0	11.5	87	100	113	135	157	205	260	336	368	409	1.0	1.6
231	3	62.2	.062	-	2.58	94.2	86.5	90.4	12.4	82	91	105	130	155	214	270	349	380	418	1.0	2.0
232	7	62.4	.023	0	1.93	94.2	87.0	90.6	12.6	84	96	109	130	153	200	254	333	366	406	.9	2.1
233	8	62.2	.046	-	2.33	94.3	86.3	90.3	12.4	83	92	109	133	156	206	258	348	380	412	1.0	2.8
234	12	62.7	.057	-	1.39	94.9	86.6	90.8	12.4	84	93	104	124	146	200	262	337	367	401	.9	1.7
235	10	61.2	.060	-	1.72	93.9	87.5	90.7	11.7	84	96	106	126	149	203	265	337	366	417	1.0	1.1
236	6	63.4	.017	-	2.27	93.7	87.0	90.4	11.7	84	98	109	126	148	192	243	325	361	406	.9	1.4
237	2	62.5	-	-	-	94.3	85.9	90.1	12.8	84	94	106	128	153	206	266	343	373	418	1.2	2.8
238	12	62.2	.050	-	2.02	94.3	86.7	90.5	12.2	84	95	108	131	156	206	258	347	379	414	1.0	1.9
239	11	62.8	.014	-	2.58	93.9	86.7	90.3	12.3	83	94	107	128	151	199	258	342	377	412	1.1	1.9
240	6	62.9	.037	-	2.44	94.2	86.8	90.5	12.5	83	95	107	128	152	203	252	334	371	410	1.0	1.3
241	6	62.6	.043	-	2.66	94.0	86.4	90.2	12.4	83	95	108	129	152	207	264	341	373	413	.8	1.5
242	12	62.5	.052	-	2.45	94.0	86.9	90.5	11.4	87	98	110	139	164	204	252	324	356	399	1.0	1.8
243	3	64.2	-	-	1.39	94.0	87.1	90.6	12.4	84	91	101	116	128	163	219	295	323	380	.8	1.2
244	3	63.5	-	-	3.18	93.5	87.5	90.5	11.6	81	100	112	131	150	194	246	330	365	420	1.0	1.0
AVERAGE		62.8	.042	1	2.34	94.0	86.8	90.4	12.0	84	96	108	129	151	199	254	335	367	409	1.0	1.7
SAMPLES	124																				

TABLE 3. - MOTOR GASOLINE SURVEY, WINTER 1970-71
AVERAGE DATA FOR DIFFERENT BRANDS--CONTINUED

DIST. 8 LOWER MISSISSIPPI--CONTINUED
MISS., LA., EASTERN AND SOUTHERN ARK., AND WESTERN TENN.

PREMIUM-PRICE GASOLINE

ITEM	SAMPLES	GR., ASTM D287 API	SULF., ASTM D1266 WT %	GUM, ASTM D381 MG	LEAD, ASTM D526 G/GAL	OCTANE NUMBER RES, ASTM D908	MOT, ASTM D357	R+M --- 2	RVP, ASTM D323 LB	DISTILLATION, ASTM D86 TEMPERATURE, F (CORRECTED TO 760 MM HG) IBP	PERCENT EVAPORATED 5	10	20	30	50	70	90	95	EP	RES %	LOSS %
245	14	58.4	0.010	1	.00	100.6	90.9	95.8	11.9	82	95	110	137	176	227	251	309	335	375	0.9	1.8
246	3	61.0	-	-	3.23	99.8	92.8	96.3	11.8	85	93	106	128	147	193	239	320	356	406	1.1	1.4
247	6	63.5	-	-	3.46	99.7	93.4	96.6	11.6	87	98	111	132	156	207	261	339	363	400	1.0	2.1
248	3	64.7	.056	-	3.07	100.3	92.4	96.4	13.3	81	92	106	130	168	220	254	331	369	415	1.0	2.0
249	7	65.6	.026	0	2.75	100.1	92.4	96.3	11.3	85	98	112	138	167	214	251	332	369	405	1.0	1.7
250	7	63.2	.065	-	2.85	100.1	92.5	96.3	12.7	82	93	108	135	166	218	261	322	349	401	1.1	2.2
251	12	66.5	.010	-	1.77	100.1	93.0	96.6	12.4	82	93	104	124	146	200	238	288	317	362	1.0	1.7
252	10	59.9	.025	-	2.30	99.8	92.6	96.2	11.9	83	95	106	124	146	204	254	310	336	384	1.0	1.3
253	6	63.4	.025	-	2.83	99.9	92.6	96.3	12.7	83	94	107	129	154	206	249	327	354	406	.9	1.4
254	2	63.3	-	-	-	100.4	93.4	96.9	12.7	84	95	109	136	166	222	258	331	364	406	1.4	3.0
255	12	60.8	.015	-	2.58	100.1	92.4	96.3	12.4	83	96	108	133	161	219	262	324	357	393	1.0	2.3
256	12	62.5	.048	-	2.93	100.1	92.7	96.4	12.3	85	96	109	131	159	218	262	328	360	403	1.1	1.9
257	9	64.6	.035	-	2.89	100.2	92.9	96.6	11.5	82	98	110	132	158	207	245	328	366	409	1.0	1.3
258	6	65.4	.024	-	3.11	100.2	92.2	96.2	12.4	83	92	105	131	164	217	256	338	378	416	1.0	1.8
259	12	62.2	.003	-	2.85	99.5	92.2	95.9	11.5	86	98	112	135	162	210	247	301	329	372	.9	1.8
260	3	64.4	-	-	2.46	100.0	92.4	96.2	12.8	82	89	100	122	148	201	240	320	356	410	.8	1.2
261	2	62.9	-	-	3.24	100.3	93.4	96.9	-	-	-	-	-	-	-	-	-	-	-	-	-
AVERAGE		63.1	.029	1	2.82	100.1	92.6	96.4	12.2	83	95	108	131	159	211	252	322	354	398	1.0	1.8
SAMPLES	126																				

TABLE 3. - MOTOR GASOLINE SURVEY, WINTER 1970-71
AVERAGE DATA FOR DIFFERENT BRANDS--CONTINUED

DIST. 9 NORTH PLAINS
MINN., N. DAK., AND S. DAK.

REGULAR-PRICE GASOLINE

ITEM	SAMPLES	GR., ASTM D287 API	SULF, ASTM D1266 WT %	GUM, ASTM D381 MG	LEAD, ASTM D526 G/GAL	OCTANE NUMBER RES, ASTM D908	OCTANE NUMBER MOT, ASTM D357	OCTANE NUMBER R+M --- 2	RVP, ASTM D323 LB	DISTILLATION, ASTM D86 TEMPERATURE, F (CORRECTED TO 760 MM HG) IBP	PERCENT EVAPORATED 5	10	20	30	50	70	90	95	EP	RES %	LOSS %
262	8	65.3	0.039	-	1.51	92.5	84.7	88.6	12.7	87	98	110	128	149	189	231	295	345	364	1.0	2.2
263	3	62.9	-	-	2.12	92.1	85.3	88.7	13.1	80	90	100	118	138	187	249	331	360	399	1.1	1.9
264	2	64.6	.059	-	2.38	93.7	87.3	90.5	-	-	-	-	-	-	-	-	-	-	-	-	-
265	3	64.0	.052	-	2.92	92.9	86.8	89.9	11.8	81	96	105	121	137	178	228	315	350	406	.9	2.1
266	3	65.5	.054	-	1.71	92.2	85.5	88.9	12.4	80	92	101	114	131	173	231	317	350	405	1.0	2.0
267	3	63.5	.095	-	1.60	92.0	84.8	88.4	12.2	84	92	103	123	146	196	257	336	365	395	.9	2.1
268	3	65.2	.038	-	1.56	92.6	85.5	89.1	12.0	80	90	101	117	135	182	239	319	351	414	1.1	1.9
269	6	62.5	.070	-	1.71	92.1	84.8	88.5	11.9	86	96	110	131	155	203	256	346	363	413	1.2	2.0
270	1	65.5	.029	-	1.64	91.4	85.6	88.5	-	-	-	-	-	-	-	-	-	-	-	-	-
271	3	65.0	.062	-	3.00	92.8	86.7	89.8	12.1	81	91	101	117	133	172	224	308	345	401	1.0	2.0
272	6	64.7	.085	-	1.64	91.8	83.7	87.8	12.7	86	95	110	135	161	215	269	353	352	398	1.1	2.3
273	3	62.7	.084	-	2.26	92.6	85.5	89.1	12.8	80	91	100	119	141	192	256	336	363	403	1.1	1.9
274	3	64.1	.084	-	1.91	93.0	85.9	89.5	11.5	81	92	104	123	143	191	246	328	361	414	1.0	2.0
AVERAGE		64.3	.063	-	2.00	92.4	85.5	89.0	12.3	82	93	104	122	143	189	244	326	355	401	1.0	2.0
SAMPLES	47																				

TABLE 3. - MOTOR GASOLINE SURVEY, WINTER 1970-71
AVERAGE DATA FOR DIFFERENT BRANDS--CONTINUED

DIST. 9 NORTH PLAINS--CONTINUED
MINN., N. DAK., AND S. DAK.

PREMIUM-PRICE GASOLINE

ITEM	SAMPLES	GR., ASTM D287 API	SULF, ASTM D1266 WT %	GUM, ASTM D381 MG	LEAD, ASTM D526 G/GAL	OCTANE NUMBER RES, ASTM D908	OCTANE NUMBER MOT, ASTM D357	OCTANE NUMBER R+M --- 2	RVP, ASTM D323 LB	DISTILLATION, ASTM D86 TEMPERATURE, F (CORRECTED TO 760 MM HG) IBP	PERCENT EVAPORATED 5	10	20	30	50	70	90	95	EP	RES %	LOSS %
275	7	67.4	0.018	-	1.50	99.9	91.6	95.8	12.5	86	96	109	129	152	201	237	315	357	382	1.1	2.4
276	3	66.2	.023	-	2.59	99.2	91.7	95.5	12.5	83	96	107	131	159	207	250	317	350	386	1.0	2.0
277	3	65.0	.000	-	2.56	99.2	92.4	95.8	12.9	83	89	101	123	149	203	241	309	345	398	1.0	2.0
278	3	63.8	.007	-	3.52	99.7	94.0	96.9	12.3	83	92	111	144	180	218	251	324	360	413	1.2	2.3
279	3	64.0	.031	-	2.46	99.2	92.2	95.7	12.9	80	91	103	124	148	206	250	310	340	394	1.0	2.0
280	3	64.0	.016	-	3.10	99.2	92.1	95.7	11.4	82	94	107	132	164	207	251	319	350	393	1.0	2.0
281	3	66.0	.032	-	2.31	99.0	92.4	95.7	12.4	80	93	104	123	149	205	242	320	353	410	1.0	2.0
282	6	64.8	.063	-	2.89	98.8	91.2	95.0	11.9	87	97	114	143	171	211	246	362	349	421	1.2	2.2
283	3	66.0	.031	-	2.28	99.0	92.2	95.6	12.3	80	94	106	127	154	206	246	321	354	407	1.0	2.0
284	3	63.5	.070	-	3.26	99.4	93.4	96.4	11.7	80	93	109	141	175	216	247	321	356	406	1.0	2.0
285	6	61.8	.017	-	2.71	98.8	89.8	94.3	11.8	87	98	114	140	166	209	244	318	343	374	1.3	1.9
286	3	65.9	.098	-	2.51	98.9	92.3	95.6	12.3	80	89	103	127	155	203	237	305	337	387	1.0	2.5
287	3	65.5	.051	-	2.52	99.0	92.3	95.7	12.4	80	93	106	132	159	208	243	316	350	404	.9	2.1
AVERAGE		64.9	.035	-	2.63	99.2	92.1	95.7	12.3	82	93	107	132	160	208	245	320	350	398	1.1	2.1
SAMPLES	49																				

TABLE 3. - MOTOR GASOLINE SURVEY, WINTER 1970-71
AVERAGE DATA FOR DIFFERENT BRANDS--CONTINUED

DIST. 10 CENTRAL PLAINS
NEBR., CENTRAL AND WESTERN IOWA, NW MO., AND NORTHERN KANS.

REGULAR-PRICE GASOLINE

ITEM	SAMPLES	GR., ASTM D287 API	SULF, ASTM D1266 WT %	GUM, ASTM D381 MG	LEAD, ASTM D526 G/GAL	OCTANE NUMBER RES, ASTM D908	OCTANE NUMBER MOT, ASTM D357	OCTANE NUMBER R+M --- 2	RVP, ASTM D323 LB	DISTILLATION, ASTM D86 TEMPERATURE, F (CORRECTED TO 760 MM HG) IBP	PERCENT EVAPORATED 5	10	20	30	50	70	90	95	EP	RES %	LOSS %
288	21	63.5	0.046	1	1.88	93.7	85.1	89.4	11.9	86	96	109	130	152	197	245	314	344	377	0.9	2.4
289	12	64.2	.047	-	2.12	93.2	86.2	89.7	11.9	81	93	105	124	145	192	250	337	371	410	1.1	2.0
290	3	61.3	.043	-	2.03	94.8	86.4	90.6	11.6	80	98	110	130	151	194	250	332	364	400	.9	1.6
291	9	65.1	.037	-	1.79	92.3	86.0	89.2	11.6	80	93	105	124	145	190	238	322	358	404	1.1	1.5
292	5	65.0	.028	1	1.80	91.8	86.0	88.9	12.5	80	95	108	130	153	203	252	327	368	410	.8	2.2
293	3	63.5	.034	-	1.52	94.7	86.2	90.5	11.2	80	93	107	128	152	196	250	320	345	382	.6	2.4
294	5	62.2	.036	1	2.73	93.7	86.7	90.2	10.0	84	104	118	140	163	212	276	351	381	419	.6	.9
295	20	65.5	.035	1	1.73	92.3	86.0	89.2	12.8	81	93	102	117	134	180	239	318	350	400	1.0	2.1
296	6	63.4	.020	-	1.71	93.5	85.9	89.7	12.2	79	93	106	126	147	200	259	348	381	405	.9	1.9
297	6	64.5	.033	-	2.06	92.8	86.4	89.6	11.9	81	94	105	124	144	190	245	328	365	412	1.0	1.8
298	12	64.3	.032	0	1.69	92.3	86.0	89.2	13.2	82	91	102	121	145	199	264	358	384	420	1.0	2.4
299	3	62.4	.020	-	2.12	93.9	86.9	90.4	11.6	84	99	110	130	147	190	262	348	372	412	.9	1.1
300	11	64.4	.038	-	1.86	92.6	86.0	89.3	11.9	81	94	105	122	143	192	254	337	371	412	1.0	1.8
301	13	63.3	.032	1	2.02	92.2	85.6	88.9	11.8	83	96	108	128	148	193	247	332	363	407	1.0	1.8
302	3	62.9	.012	-	2.43	94.2	86.4	90.3	10.6	82	100	115	138	159	212	269	338	366	390	.8	1.7
303	3	63.5	.014	-	2.65	94.8	87.9	91.4	11.2	84	105	120	142	163	202	246	316	346	380	.7	1.3
304	3	61.8	.046	-	2.03	94.8	86.3	90.6	11.5	80	96	110	132	152	200	256	348	384	404	.9	1.1
305	3	61.7	.068	-	2.65	94.4	86.5	90.5	12.0	78	94	110	133	158	207	258	334	370	400	.8	1.2
AVERAGE		63.5	.035	1	2.05	93.4	86.3	89.9	11.7	81	96	109	129	150	197	253	334	366	402	.9	1.7
SAMPLES	141																				

TABLE 3. - MOTOR GASOLINE SURVEY, WINTER 1970-71
AVERAGE DATA FOR DIFFERENT BRANDS--CONTINUED

DIST. 10 CENTRAL PLAINS--CONTINUED
NEBR., CENTRAL AND WESTERN IOWA, NW MO., AND NORTHERN KANS.

PREMIUM-PRICE GASOLINE

ITEM	SAMPLES	GR., ASTM D287 API	SULF, ASTM D1266 WT %	GUM, ASTM D381 MG	LEAD, ASTM D526 G/GAL	OCTANE NUMBER RES, ASTM D908	OCTANE NUMBER MOT, ASTM D357	OCTANE NUMBER R+M --- 2	RVP, ASTM D323 LB	DISTILLATION, ASTM D86 TEMPERATURE, F (CORRECTED TO 760 MM HG) IBP	PERCENT EVAPORATED 5	10	20	30	50	70	90	95	EP	RES %	LOSS %
306	21	61.5	0.018	1	1.63	99.9	91.5	95.7	11.7	84	97	111	135	161	210	247	308	339	391	1.0	2.2
307	12	64.0	.027	-	2.57	99.4	92.6	96.0	11.8	80	92	104	124	146	198	246	322	356	400	.9	2.5
308	2	60.6	.027	-	2.79	100.7	92.0	96.4	11.2	80	93	106	128	154	213	258	338	370	404	.9	2.1
309	9	66.1	.027	-	2.33	99.0	92.5	95.8	12.3	79	91	103	125	152	202	244	327	354	404	1.1	2.1
310	5	67.2	.020	1	2.13	98.9	92.4	95.7	12.2	80	95	111	138	166	210	247	335	380	414	.7	2.8
311	3	63.3	.017	-	1.23	100.5	91.9	96.2	11.4	82	94	106	128	148	204	248	295	316	360	.7	2.3
312	7	63.4	.024	1	2.66	99.2	91.9	95.6	10.9	81	96	113	140	167	219	262	329	362	397	.7	2.6
313	19	68.6	.036	0	1.88	98.9	92.4	95.7	12.9	81	91	102	117	136	186	237	318	352	406	1.0	2.3
314	5	62.7	.012	-	2.55	99.6	92.3	96.0	11.1	80	90	108	136	165	214	265	318	346	384	.5	1.5
315	6	64.8	.019	-	2.31	99.0	92.4	95.7	11.7	80	92	104	128	154	208	251	318	348	400	1.0	2.3
316	12	65.8	.021	0	2.31	98.3	92.9	95.6	13.1	82	91	105	129	158	209	247	324	350	385	1.0	2.7
317	3	63.8	.013	-	2.98	100.0	93.1	96.6	11.2	80	93	105	127	148	188	234	312	344	386	.7	1.3
318	12	64.2	.021	-	2.46	99.4	92.8	96.1	11.6	81	93	105	129	159	210	250	323	357	405	1.0	2.2
319	13	63.7	.027	1	2.42	99.1	92.1	95.6	11.8	82	95	109	131	158	209	250	326	351	401	1.0	1.9
320	3	62.4	.022	-	2.81	100.4	92.4	96.4	10.7	76	90	104	126	150	206	252	314	342	388	.5	1.5
321	3	55.6	.016	-	3.19	101.0	92.5	96.8	11.2	78	100	110	132	158	222	264	318	340	390	.7	1.3
322	3	64.0	.016	-	2.40	100.6	92.4	96.5	11.1	80	92	106	130	159	214	254	320	350	396	.5	2.5
323	3	61.9	.016	-	2.94	100.0	92.2	96.1	10.7	80	95	108	130	156	214	262	324	350	404	.9	1.6
AVERAGE		63.5	.021	1	2.42	99.7	92.4	96.1	11.6	80	93	107	130	155	208	251	321	350	395	.8	2.1
SAMPLES	141																				

TABLE 3. - MOTOR GASOLINE SURVEY, WINTER 1970-71
AVERAGE DATA FOR DIFFERENT BRANDS--CONTINUED

DIST. 11 SOUTH PLAINS
SOUTHERN KANS., SW MO., WESTERN ARK., AND NORTHERN TEX.

REGULAR-PRICE GASOLINE

ITEM	SAMPLES	GR., ASTM D287 API	SULF, ASTM D1266 WT %	GUM, ASTM D381 MG	LEAD, ASTM D526 G/GAL	OCTANE NUMBER RES, ASTM D908	OCTANE NUMBER MOT, ASTM D357	OCTANE NUMBER R+M --- 2	RVP, ASTM D323 LB	DISTILLATION, ASTM D86 TEMPERATURE, F (CORRECTED TO 760 MM HG) IBP	PERCENT EVAPORATED 5	10	20	30	50	70	90	95	EP	RES %	LOSS %
324	5	64.9	0.093	-	2.71	92.5	86.5	89.5	11.3	83	96	107	125	142	184	246	332	368	415	1.0	2.1
325	8	62.5	.046	2	1.64	92.5	85.8	89.2	12.1	78	92	103	121	143	195	255	343	380	424	1.1	1.7
326	6	64.1	.014	-	2.12	92.7	86.7	89.7	12.0	82	93	105	123	144	188	248	335	364	403	1.0	2.1
327	7	64.0	.046	0	2.94	93.5	87.2	90.4	11.4	85	99	111	129	145	189	244	342	383	421	1.1	2.0
328	3	65.8	.044	-	2.57	92.1	86.0	89.1	11.0	90	107	116	130	143	172	215	312	365	415	1.2	1.8
329	3	64.1	.038	-	2.34	92.8	86.1	89.5	11.8	90	100	110	128	151	203	259	336	377	434	1.0	1.5
330	6	63.2	.027	-	2.27	93.0	86.8	89.9	12.3	81	90	104	121	139	192	258	342	368	406	1.1	2.7
331	8	64.9	.046	1	1.96	92.2	85.9	89.1	11.7	82	95	107	128	153	199	245	318	355	397	1.0	2.1
332	3	64.6	.010	-	2.40	93.4	87.1	90.3	12.5	83	93	104	120	140	191	251	339	369	406	1.1	1.4
333	7	65.2	.023	0	2.13	92.4	86.3	89.4	12.3	82	94	103	119	138	184	245	331	363	402	1.0	1.7
334	3	64.3	.031	-	1.38	94.4	86.6	90.5	13.0	83	93	103	124	148	199	257	325	346	390	.8	1.2
335	6	63.2	.061	-	2.45	93.6	87.1	90.4	12.0	85	95	106	124	146	198	265	344	373	412	1.0	1.6
336	18	65.8	.041	1	1.98	93.1	86.5	89.8	12.2	82	94	105	121	139	185	244	333	375	414	1.0	1.6
337	3	66.5	.013	-	2.47	93.6	88.2	90.9	12.0	86	99	113	133	155	198	238	325	368	404	1.1	.9
338	4	62.9	.026	2	2.39	93.4	87.1	90.3	11.1	90	97	106	124	130	187	235	344	376	420	.9	1.9
339	6	64.7	-	-	2.18	93.0	86.3	89.7	11.6	83	96	106	123	141	186	245	336	370	412	1.1	1.4
340	11	62.9	.070	-	2.12	92.7	86.4	89.6	11.9	82	94	105	124	145	193	252	343	380	422	1.1	1.6
341	9	64.4	-	-	2.15	92.9	86.2	89.6	12.2	81	91	103	121	140	187	251	339	376	410	1.0	2.0
342	17	62.3	.057	2	2.78	92.4	85.9	89.2	10.6	87	101	114	135	157	200	250	328	360	393	1.0	1.5
343	3	62.3	.039	-	2.52	94.1	87.6	90.9	11.4	91	104	114	132	153	201	257	331	370	428	1.2	1.3
AVERAGE		64.1	.040	1	2.28	93.0	86.6	89.8	11.8	84	96	107	125	145	192	248	334	369	411	1.0	1.7
SAMPLES	136																				

TABLE 3. - MOTOR GASOLINE SURVEY, WINTER 1970-71
AVERAGE DATA FOR DIFFERENT BRANDS--CONTINUED

DIST. 11 SOUTH PLAINS--CONTINUED
SOUTHERN KANS., SW MO., WESTERN ARK., AND NORTHERN TEX.

PREMIUM-PRICE GASOLINE

ITEM	SAMPLES	GR., ASTM D287 API	SULF, ASTM D1266 WT %	GUM, ASTM D381 MG	LEAD, ASTM D526 G/GAL	OCTANE NUMBER RES, ASTM D908	OCTANE NUMBER MOT, ASTM D357	OCTANE NUMBER R+M --- 2	RVP, ASTM D323 LB	DISTILLATION, ASTM D86 TEMPERATURE, F (CORRECTED TO 760 MM HG) IBP	PERCENT EVAPORATED 5	10	20	30	50	70	90	95	EP	RES %	LOSS %
344	6	64.3	0.082	-	2.90	99.6	92.5	96.1	11.8	83	93	108	133	163	214	253	334	368	416	1.1	1.7
345	8	63.3	.019	2	2.27	98.4	92.5	95.5	12.6	81	92	104	127	155	211	254	313	346	385	1.0	2.4
346	5	64.0	.010	-	2.63	99.1	92.6	95.9	12.5	83	95	109	136	164	219	266	343	377	414	.9	1.6
347	7	61.0	.028	1	3.29	99.7	92.3	96.0	11.3	84	98	109	128	147	202	253	333	361	408	1.0	1.6
348	3	64.8	.053	-	2.10	99.6	91.9	95.8	11.1	88	104	121	145	167	213	250	344	388	434	1.3	1.2
349	3	61.5	.016	-	2.82	100.0	92.3	96.2	12.1	96	103	119	145	175	225	264	313	335	392	1.0	2.0
350	9	61.3	.015	-	2.89	99.4	92.1	95.8	12.3	85	94	109	135	164	221	268	339	370	407	1.0	2.2
351	8	67.6	.047	1	2.23	99.2	93.2	96.2	11.8	83	97	111	136	164	207	239	319	353	403	1.0	2.5
352	3	62.5	.008	-	2.66	99.4	92.7	96.1	12.6	83	94	110	136	169	224	271	344	379	417	.9	2.1
353	7	63.8	.019	0	2.61	99.1	92.6	95.9	12.0	83	94	109	137	171	222	271	339	372	414	1.0	2.2
354	3	64.4	.011	-	1.55	100.5	92.3	96.4	12.3	86	97	106	122	138	186	233	275	306	354	.5	.5
355	6	63.7	.026	-	2.91	100.2	93.9	97.1	11.9	84	96	108	131	161	213	267	325	355	401	1.0	1.3
356	18	66.6	.025	1	2.39	99.2	92.4	95.8	12.0	85	96	108	129	153	204	251	327	364	406	1.0	2.2
357	3	69.3	.010	-	2.71	99.8	94.1	97.0	12.0	86	95	107	127	150	200	240	329	373	414	1.0	1.5
358	3	61.6	.012	-	3.21	99.9	92.6	96.3	11.6	85	90	105	127	152	209	262	317	335	380	1.0	1.5
359	6	63.9	-	-	2.60	99.4	92.9	96.2	12.6	83	96	110	135	163	209	250	328	362	410	1.0	2.1
360	12	61.9	.021	-	2.50	98.9	92.4	95.7	12.3	82	93	106	129	157	216	261	322	354	397	1.0	1.9
361	9	64.8	-	-	2.83	99.8	93.5	96.7	11.7	83	92	107	133	163	218	262	331	362	399	.9	2.5
362	17	62.2	.023	0	2.88	98.8	91.8	95.3	11.1	85	100	115	142	169	215	249	305	334	371	1.0	1.9
363	3	60.3	.042	-	2.97	100.2	92.2	96.2	10.7	90	104	116	139	167	221	260	328	362	414	1.0	2.0
AVERAGE		63.6	.026	1	2.65	99.5	92.6	96.1	11.9	85	96	110	134	161	212	256	325	358	402	1.0	1.8
SAMPLES	139																				

TABLE 3. - MOTOR GASOLINE SURVEY, WINTER 1970-71
AVERAGE DATA FOR DIFFERENT BRANDS--CONTINUED

DIST. 12 SOUTH TEXAS

REGULAR-PRICE GASOLINE

ITEM	SAMPLES	GR., ASTM D287 API	SULF, ASTM D1266 WT %	GUM, ASTM D381 MG	LEAD, ASTM D526 G/GAL	OCTANE NUMBER RES, ASTM D908	OCTANE NUMBER MOT, ASTM D357	OCTANE NUMBER R+M --- 2	RVP, ASTM D323 LB	DISTILLATION, ASTM D86 TEMPERATURE, F (CORRECTED TO 760 MM HG) IBP	PERCENT EVAPORATED 5	10	20	30	50	70	90	95	EP	RES %	LOSS %
364	7	63.4	0.016	2	3.08	94.2	87.3	90.8	10.8	88	100	113	131	150	190	244	340	377	411	1.0	1.8
365	3	64.5	.021	-	1.84	94.4	85.9	90.2	12.5	86	94	105	122	141	185	240	322	356	403	.9	1.1
366	5	63.4	.045	-	2.47	94.7	86.5	90.6	11.0	89	103	117	137	158	200	248	327	362	402	1.0	1.8
367	3	64.6	.017	-	1.85	94.6	86.2	90.4	12.7	87	103	113	128	145	186	235	321	359	403	1.0	1.0
368	3	63.4	.010	-	3.90	92.3	87.2	89.8	10.3	90	114	124	139	154	193	235	296	320	353	.6	.4
369	10	63.5	.028	2	1.52	94.5	86.4	90.5	11.8	86	98	111	130	151	200	258	323	348	387	1.0	1.9
370	10	64.2	.025	5	2.98	94.2	87.7	91.0	11.1	88	100	111	127	145	183	236	327	366	413	1.1	1.6
371	3	62.1	.013	-	3.96	93.4	88.8	91.1	10.0	93	110	122	140	159	192	225	289	346	406	1.2	.8
372	6	66.4	.011	-	2.10	93.7	88.1	90.9	11.3	83	97	109	125	143	185	237	321	356	403	1.0	1.6
373	6	63.8	.018	-	2.32	94.0	88.0	91.0	11.0	84	105	114	132	152	196	249	326	359	410	.9	.7
374	4	61.9	.026	4	2.24	93.7	86.9	90.3	11.4	85	96	107	127	149	197	254	349	386	418	1.0	2.0
375	3	63.6	.043	-	3.05	94.4	87.4	90.9	11.8	88	102	113	131	148	192	244	319	373	414	1.0	1.5
376	9	61.5	.029	-	2.62	93.8	87.1	90.5	11.8	86	97	110	131	152	198	259	342	376	416	1.0	1.8
377	10	62.9	.031	2	2.49	94.0	86.8	90.4	11.0	89	103	116	134	157	202	250	324	356	396	1.0	1.7
378	3	64.2	.049	-	2.91	95.5	87.8	91.7	12.8	83	91	103	121	141	189	243	323	356	411	.7	2.3
AVERAGE		63.6	.025	3	2.62	94.1	87.2	90.7	11.4	87	101	113	130	150	193	244	323	360	403	1.0	1.5
SAMPLES	85																				

TABLE 3. - MOTOR GASOLINE SURVEY, WINTER 1970-71
AVERAGE DATA FOR DIFFERENT BRANDS--CONTINUED

DIST. 12 SOUTH TEXAS--CONTINUED

PREMIUM-PRICE GASOLINE

ITEM	SAMPLES	GR., ASTM D287 API	SULF, ASTM D1266 WT %	GUM, ASTM D381 MG	LEAD, ASTM D526 G/GAL	OCTANE NUMBER RES, ASTM D908	OCTANE NUMBER MOT, ASTM D357	OCTANE NUMBER R+M --- 2	RVP, ASTM D323 LB	DISTILLATION, ASTM D86 TEMPERATURE, F (CORRECTED TO 760 MM HG) IBP	PERCENT EVAPORATED 5	10	20	30	50	70	90	95	EP	RES %	LOSS %
379	7	60.8	0.013	2	3.34	99.7	92.6	96.2	11.3	88	101	118	135	151	200	252	325	359	401	1.0	1.7
380	3	62.2	.015	-	3.31	100.3	93.7	97.0	12.0	83	96	110	140	178	225	259	322	350	407	1.1	2.9
381	7	61.4	.029	-	3.18	100.0	92.7	96.4	11.5	89	100	116	142	171	217	256	322	352	400	1.0	2.5
382	3	62.7	.020	-	3.25	100.3	93.4	96.9	12.3	81	94	110	136	166	214	253	320	352	406	1.0	2.0
383	3	63.3	.027	-	4.17	99.2	90.8	95.0	8.8	88	111	118	129	140	170	232	313	344	376	.8	.2
384	9	65.0	.007	-	1.49	100.4	92.7	96.6	11.7	86	98	108	124	143	192	233	277	305	345	.9	1.3
385	10	59.7	.016	4	2.90	100.3	92.5	96.4	11.3	86	98	111	131	153	205	250	322	355	399	1.0	1.7
386	3	59.6	.032	-	3.45	100.0	91.2	95.6	11.3	88	105	120	145	170	215	258	326	360	404	1.1	.9
387	6	65.5	.012	-	2.10	99.9	94.3	97.1	11.3	85	96	106	121	136	185	238	302	340	389	1.0	1.5
388	6	64.1	.012	-	2.72	100.1	93.3	96.7	11.1	84	100	112	133	157	210	257	338	375	414	1.2	.8
389	4	61.1	.009	5	3.13	99.9	92.8	96.4	11.8	83	96	110	134	163	216	260	316	337	377	1.0	1.6
390	3	61.6	.009	-	3.31	100.0	92.3	96.2	10.8	84	103	115	135	155	201	251	331	364	416	1.0	.5
391	9	58.7	.009	-	2.63	100.2	92.6	96.4	11.1	87	101	113	133	156	216	264	321	349	402	1.0	1.3
392	10	62.0	.013	3	2.60	99.8	92.5	96.2	11.0	90	102	116	138	162	208	246	299	331	375	1.0	1.7
393	3	62.8	.031	-	3.36	100.4	92.0	96.2	12.3	84	99	110	130	152	202	250	320	353	405	1.0	1.0
AVERAGE		62.0	.017	4	3.00	100.0	92.6	96.3	11.3	86	100	113	134	157	205	251	317	348	394	1.0	1.4
SAMPLES	86																				

TABLE 3. - MOTOR GASOLINE SURVEY, WINTER 1970-71
AVERAGE DATA FOR DIFFERENT BRANDS--CONTINUED

DIST. 13 SOUTH MT. STATES
SW KANS., OKLA. AND TEX. PANHANDLES, W. TEX., N. MEX., COLO., UTAH, ARIZ., NEV., AND E. CALIF.

REGULAR-PRICE GASOLINE

ITEM	SAMPLES	GR., ASTM D287 API	SULF, ASTM D1266 WT %	GUM, ASTM D381 MG	LEAD, ASTM D526 G/GAL	OCTANE NUMBER RES, ASTM D908	OCTANE NUMBER MOT, ASTM D357	OCTANE NUMBER R+M --- 2	RVP, ASTM D323 LB	DISTILLATION, ASTM D86 TEMPERATURE, F (CORRECTED TO 760 MM HG) IBP	PERCENT EVAPORATED 5	10	20	30	50	70	90	95	EP	RES %	LOSS %
394	4	62.6	-	-	1.87	91.9	84.7	88.3	10.8	85	97	107	125	140	183	252	345	376	404	1.0	1.0
395	13	63.3	0.019	2	1.90	91.2	85.5	88.4	11.2	86	99	114	137	160	202	253	333	351	395	1.0	2.3
396	22	61.8	.071	2	1.86	93.2	85.8	89.5	11.7	86	96	110	129	151	198	254	336	372	409	1.0	2.4
397	16	63.8	.038	2	2.20	92.4	85.8	89.1	12.1	87	98	113	134	158	204	258	351	378	416	1.1	2.1
398	23	63.0	.060	1	2.61	92.0	86.1	89.1	10.5	92	106	119	140	159	201	249	341	377	416	.9	1.7
399	10	61.0	.070	1	2.62	93.0	85.6	89.3	10.4	90	104	117	139	163	215	269	349	382	411	1.0	1.4
400	2	61.6	-	-	2.21	92.3	84.2	88.3	-	-	-	-	-	-	-	-	-	-	-	-	-
401	3	65.7	-	-	2.80	91.8	86.2	89.0	11.7	84	94	106	124	146	187	227	313	359	414	1.0	1.5
402	21	66.0	.029	-	1.34	92.0	85.6	88.8	11.2	92	103	114	129	145	185	242	339	381	421	1.1	1.4
403	12	66.3	-	-	2.57	91.4	85.9	88.7	11.2	87	100	113	133	154	197	241	334	375	416	1.1	1.5
404	20	61.3	.058	1	1.98	93.0	86.7	89.9	10.4	91	107	118	138	156	201	248	335	371	407	.9	1.5
405	3	62.4	-	-	.62	90.9	83.5	87.2	12.3	80	91	100	116	136	193	256	336	368	430	1.1	2.4
406	22	63.2	.046	2	2.31	92.3	86.1	89.2	11.6	86	99	112	132	154	198	248	339	377	417	1.0	1.8
407	25	60.2	.059	2	1.54	93.3	85.8	89.6	11.5	89	98	113	133	155	202	255	342	381	413	1.0	2.3
408	39	61.8	.037	2	2.33	92.4	85.1	88.8	10.6	90	103	118	141	165	213	264	342	371	402	1.0	1.8
409	15	62.1	.038	1	1.82	93.9	86.1	90.0	10.7	89	99	115	139	163	211	265	343	374	419	1.0	2.5
AVERAGE		62.9	.048	2	2.04	92.3	85.5	88.9	11.2	88	100	113	133	154	199	252	339	373	413	1.0	1.8
SAMPLES	250																				

TABLE 3. - MOTOR GASOLINE SURVEY, WINTER 1970-71
AVERAGE DATA FOR DIFFERENT BRANDS--CONTINUED

DIST. 13 SOUTH MT. STATES--CONTINUED
SW KANS., OKLA. AND TEX. PANHANDLES, W. TEX., N. MEX., COLO., UTAH, ARIZ., NEV., AND E. CALIF.

PREMIUM-PRICE GASOLINE

ITEM	SAMPLES	GR., ASTM D287 API	SULF, ASTM D1266 WT %	GUM, ASTM D381 MG	LEAD, ASTM D526 G/GAL	OCTANE NUMBER RES, ASTM D908	OCTANE NUMBER MOT, ASTM D357	OCTANE NUMBER R+M --- 2	RVP, ASTM D323 LB	DISTILLATION, ASTM D86 TEMPERATURE, F (CORRECTED TO 760 MM HG) IBP	PERCENT EVAPORATED 5	10	20	30	50	70	90	95	EP	RES %	LOSS %
410	6	61.1	-	-	2.25	98.4	90.8	94.6	11.2	83	95	108	135	161	211	257	322	354	400	1.0	2.3
411	12	63.1	0.019	1	2.03	97.4	89.8	93.6	11.2	84	99	115	140	165	212	256	327	356	392	1.0	2.3
412	21	61.2	.024	1	2.62	99.0	91.8	95.4	11.5	84	96	109	133	159	213	257	329	367	409	1.0	2.6
413	18	63.4	.025	2	2.50	97.9	91.5	94.7	12.3	85	96	113	141	168	217	262	338	356	400	.9	2.5
414	23	63.9	.040	1	2.72	99.3	93.0	96.2	10.8	89	104	117	139	161	209	250	326	368	401	.9	1.5
415	10	63.3	.050	1	3.00	99.9	92.5	96.2	10.2	90	105	120	145	172	222	264	338	373	403	1.0	1.5
416	3	56.3	-	-	3.43	97.3	88.2	92.8	10.4	81	100	119	151	185	241	287	356	387	420	1.0	2.5
417	3	69.9	-	-	2.65	99.3	94.6	97.0	11.1	86	98	110	129	151	199	236	317	363	411	1.0	1.0
418	21	68.0	.022	-	1.69	98.8	93.2	96.0	11.5	90	101	112	129	149	202	242	318	363	405	1.0	1.6
419	12	69.6	-	-	2.32	98.8	93.8	96.3	11.2	87	100	112	130	152	201	239	328	373	410	1.1	1.4
420	18	59.7	.028	1	2.90	99.7	92.4	96.1	10.1	91	108	122	147	174	216	253	322	347	392	.9	1.7
421	3	63.3	-	-	2.18	97.1	89.1	93.1	10.8	81	95	109	133	165	209	249	320	352	400	1.0	2.5
422	22	64.1	.038	2	2.62	98.8	92.3	95.6	11.4	84	96	112	137	161	210	252	331	370	413	1.0	2.2
423	24	61.1	.036	3	2.48	99.1	91.5	95.3	11.7	87	97	115	142	172	222	267	333	364	398	.9	2.5
424	41	62.4	.028	2	2.50	98.6	91.5	95.1	10.4	89	103	119	143	169	216	262	325	357	391	.9	1.7
425	15	59.3	.032	1	2.53	99.0	90.6	94.8	10.6	87	100	117	144	170	220	267	340	378	420	1.0	2.6
AVERAGE		63.1	.031	2	2.53	98.7	91.7	95.2	11.0	86	100	114	139	165	214	256	329	364	404	1.0	2.0
SAMPLES	252																				

TABLE 3. - MOTOR GASOLINE SURVEY, WINTER 1970-71
AVERAGE DATA FOR DIFFERENT BRANDS--CONTINUED

DIST. 14 NORTH MT. STATES
WYO., MONT., IDAHO, EASTERN WASH., AND EASTERN OREG.

REGULAR-PRICE GASOLINE

ITEM	SAMPLES	GR., ASTM D287 API	SULF, ASTM D1266 WT %	GUM, ASTM D381 MG	LEAD, ASTM D526 G/GAL	OCTANE NUMBER RES, ASTM D908	OCTANE NUMBER MOT, ASTM D357	OCTANE NUMBER R+M --- 2	RVP, ASTM D323 LB	DISTILLATION, ASTM D86 TEMPERATURE, F (CORRECTED TO 760 MM HG) IBP	PERCENT EVAPORATED 5	10	20	30	50	70	90	95	EP	RES LOSS %	%
426	11	63.1	0.068	1	1.79	92.8	84.8	88.8	12.3	81	90	104	129	155	210	259	335	367	409	1.0	2.8
427	5	63.5	.035	1	2.21	94.0	86.9	90.5	11.8	88	101	113	133	154	200	250	324	355	401	1.0	1.5
428	7	64.2	.063	-	1.97	92.0	86.0	89.0	12.0	89	99	115	137	161	210	261	358	393	408	1.2	2.2
429	10	63.2	.082	0	1.88	92.6	84.0	88.3	12.6	85	95	109	134	162	216	269	352	368	390	1.0	2.5
430	7	63.9	.028	-	1.75	92.7	85.9	89.3	12.7	83	95	107	129	153	201	251	335	358	407	1.0	1.9
431	6	64.5	.030	-	2.05	92.8	87.0	89.9	12.9	81	92	104	125	149	195	244	314	347	389	.8	2.3
432	12	63.7	.073	0	2.20	93.2	85.8	89.5	12.8	89	97	109	130	154	203	257	348	379	415	1.1	2.5
433	5	63.5	.072	0	1.81	94.1	85.8	90.0	12.5	87	95	106	127	153	203	265	330	365	403	1.0	3.0
434	5	63.4	.071	0	2.05	93.9	86.3	90.1	12.3	87	100	111	133	158	206	262	335	377	409	1.0	3.0
435	5	64.0	.030	3	.93	94.3	86.1	90.2	12.4	89	102	113	134	159	204	255	327	363	421	1.1	2.2
436	11	63.1	.087	0	1.72	92.4	84.3	88.4	12.2	87	96	111	136	162	215	268	351	368	392	1.1	2.4
437	8	63.5	.046	0	2.14	93.1	86.7	89.9	12.1	84	93	108	130	150	203	248	327	357	402	1.0	2.3
438	2	64.0	.022	-	2.22	93.6	87.2	90.4	12.7	86	97	110	130	153	201	249	326	358	402	1.0	3.0
AVERAGE		63.7	.054	1	1.90	93.2	85.9	89.6	12.4	86	96	109	131	156	205	257	336	366	404	1.0	2.4
SAMPLES	94																				

TABLE 3. - MOTOR GASOLINE SURVEY, WINTER 1970-71
AVERAGE DATA FOR DIFFERENT BRANDS--CONTINUED

DIST. 14 NORTH MT. STATES--CONTINUED
WYO., MONT., IDAHO, EASTERN WASH., AND EASTERN OREG.

PREMIUM-PRICE GASOLINE

ITEM	SAMPLES	GR., ASTM D287 API	SULF., ASTM D1266 WT %	GUM, ASTM D381 MG	LEAD, ASTM D526 G/GAL	OCTANE NUMBER RES., ASTM D908	OCTANE NUMBER MOT., ASTM D357	OCTANE NUMBER R+M --- 2	RVP, ASTM D323 LB	DISTILLATION, ASTM D86 TEMPERATURE, F (CORRECTED TO 760 MM HG) IBP	PERCENT EVAPORATED 5	10	20	30	50	70	90	95	EP	RES %	LOSS %
439	11	66.7	0.044	1	2.48	99.5	90.6	95.1	12.2	80	93	106	131	161	209	241	303	339	388	1.0	2.8
440	5	62.7	.021	2	2.55	100.1	92.8	96.5	12.1	84	90	108	135	155	220	254	321	348	399	1.0	4.0
441	10	65.2	.032	-	2.29	98.6	90.8	94.7	12.0	86	99	114	139	165	210	244	344	366	409	1.1	2.3
442	10	67.5	.043	0	2.45	99.4	89.9	94.7	12.7	84	95	110	136	165	210	243	317	330	375	.9	2.8
443	7	65.0	.019	-	1.97	99.1	91.3	95.2	12.1	84	97	112	140	169	211	243	339	365	418	1.0	2.3
444	6	65.3	.019	-	2.28	99.3	91.7	95.5	11.7	82	94	109	136	167	214	246	324	368	412	.8	2.8
445	12	61.2	.050	0	2.79	98.9	91.5	95.2	12.6	87	96	112	142	175	225	262	346	363	409	1.1	3.4
446	5	68.3	.047	1	2.35	100.2	92.0	96.1	12.5	84	95	110	134	169	207	238	294	336	381	1.0	3.5
447	5	64.4	.012	1	2.52	99.9	93.4	96.7	11.5	85	98	112	139	174	214	259	314	357	392	1.0	3.0
448	6	69.7	.017	2	2.10	99.6	92.9	96.3	11.9	91	103	114	134	156	200	237	300	340	382	1.1	1.9
449	11	67.7	.050	1	2.39	99.3	90.2	94.8	12.4	86	99	114	141	169	213	243	314	338	380	1.0	2.4
450	8	63.4	.020	0	2.51	99.3	91.7	95.5	11.7	86	95	112	138	158	209	241	316	346	402	1.0	2.5
451	2	65.2	.021	-	2.63	100.3	92.9	96.6	13.0	84	89	108	139	173	222	259	323	354	402	1.0	4.0
AVERAGE		65.6	.030	1	2.41	99.5	91.7	95.6	12.2	85	96	111	137	166	213	247	320	350	396	1.0	2.9
SAMPLES	98																				

TABLE 3. - MOTOR GASOLINE SURVEY, WINTER 1970-71
AVERAGE DATA FOR DIFFERENT BRANDS--CONTINUED

DIST. 15 PACIFIC NORTHWEST
WESTERN WASH. AND WESTERN OREG.

REGULAR-PRICE GASOLINE

ITEM	SAMPLES	GR., ASTM D287 API	SULF, ASTM D1266 WT %	GUM, ASTM D381 MG	LEAD, ASTM D526 G/GAL	OCTANE NUMBER RES, ASTM D908	OCTANE NUMBER MOT, ASTM D357	OCTANE NUMBER R+M --- 2	RVP, ASTM D323 LB	DISTILLATION, ASTM D86 TEMPERATURE, F (CORRECTED TO 760 MM HG) IBP	PERCENT EVAPORATED 5	10	20	30	50	70	90	95	EP	RES %	LOSS %
452	1	64.1	0.010	1	2.07	93.3	87.4	90.4	11.7	90	102	112	127	144	182	232	312	344	384	1.0	4.0
453	8	64.9	.027	2	1.94	93.2	87.1	90.2	11.8	87	99	111	129	149	192	239	343	384	416	1.2	2.1
454	4	66.2	.024	1	2.17	93.1	87.5	90.3	12.3	84	94	104	122	142	186	231	322	366	402	1.0	3.0
455	5	64.8	.021	0	2.13	93.2	87.1	90.2	12.0	84	100	110	128	151	195	240	318	351	389	1.0	2.5
456	8	66.0	.033	1	2.11	92.9	87.1	90.0	12.3	87	98	108	126	145	189	236	338	382	417	1.2	1.9
457	8	63.5	.012	1	2.08	92.9	87.6	90.3	12.0	85	97	106	125	145	192	252	332	362	389	1.2	2.1
458	10	64.7	.026	1	2.17	92.9	87.2	90.1	12.3	84	97	107	125	146	192	247	343	377	413	1.2	1.8
459	8	64.4	.016	1	2.35	93.2	87.4	90.3	12.3	91	102	114	134	157	202	251	327	356	392	1.1	2.2
460	8	64.8	.021	1	2.13	93.2	87.2	90.2	11.8	92	102	112	128	148	188	238	332	381	412	1.2	1.7
AVERAGE		64.8	.021	1	2.13	93.1	87.3	90.2	12.1	87	99	109	127	147	191	241	330	367	402	1.1	2.4
SAMPLES	60																				

TABLE 3. - MOTOR GASOLINE SURVEY, WINTER 1970-71
AVERAGE DATA FOR DIFFERENT BRANDS--CONTINUED

DIST. 15 PACIFIC NORTHWEST--CONTINUED
WESTERN WASH. AND WESTERN OREG.

PREMIUM-PRICE GASOLINE

ITEM	SAMPLES	GR., ASTM D287 API	SULF, ASTM D1266 WT %	GUM, ASTM D381 MG	LEAD, ASTM D526 G/GAL	OCTANE NUMBER RES, ASTM D908	OCTANE NUMBER MOT, ASTM D357	OCTANE NUMBER R+M --- 2	RVP, ASTM D323 LB	DISTILLATION, ASTM D86 TEMPERATURE, F (CORRECTED TO 760 MM HG) IBP	PERCENT EVAPORATED 5	10	20	30	50	70	90	95	EP	RES %	LOSS %
461	1	61.2	0.010	2	2.10	99.7	91.6	95.7	10.2	90	104	115	134	156	202	248	314	341	382	1.0	4.0
462	8	65.0	.012	1	2.56	99.9	91.9	95.9	11.8	89	101	113	134	159	205	240	297	333	368	1.0	2.1
463	4	62.8	.014	0	2.65	100.2	91.7	96.0	12.6	85	97	109	136	160	210	249	307	338	389	1.0	3.6
464	5	62.6	.009	0	2.17	100.3	90.9	95.6	12.4	83	93	107	131	157	214	258	313	340	380	.9	3.6
465	8	62.9	.013	1	2.68	100.1	91.6	95.9	12.5	84	92	106	135	164	215	254	317	347	386	1.2	2.8
466	8	62.3	.007	1	2.20	99.4	91.8	95.6	11.7	86	99	113	135	159	204	245	309	343	376	1.0	1.9
467	9	61.2	.020	2	2.46	99.5	91.6	95.6	12.3	87	98	108	132	159	210	250	311	346	384	1.2	1.7
468	8	62.0	.010	1	2.19	100.3	90.5	95.4	12.5	83	96	109	134	163	222	267	323	349	384	1.2	2.1
469	8	61.4	.021	1	2.58	100.0	91.6	95.8	12.6	85	94	109	135	166	217	255	315	348	387	1.1	2.5
AVERAGE		62.4	.013	1	2.40	99.9	91.5	95.7	12.1	86	97	110	134	160	211	252	312	343	382	1.1	2.7
SAMPLES	59																				

TABLE 3. - MOTOR GASOLINE SURVEY, WINTER 1970-71
AVERAGE DATA FOR DIFFERENT BRANDS--CONTINUED

DIST. 16 NORTH CALIFORNIA

REGULAR-PRICE GASOLINE

ITEM	SAMPLES	GR., ASTM D287 API	SULF, ASTM D1266 WT %	GUM, ASTM D381 MG	LEAD, ASTM D526 G/GAL	OCTANE NUMBER RES, ASTM D908	OCTANE NUMBER MOT, ASTM D357	OCTANE NUMBER R+M --- 2	RVP, ASTM D323 LB	DISTILLATION, ASTM D86 TEMPERATURE, F (CORRECTED TO 760 MM HG) IBP	PERCENT EVAPORATED 5	10	20	30	50	70	90	95	EP	RES %	LOSS %
470	8	60.7	0.050	1	1.35	94.9	85.1	90.0	10.9	87	99	114	136	160	208	258	334	363	398	1.0	2.2
471	3	64.5	-	-	1.73	90.9	86.5	88.7	9.3	95	102	115	137	154	191	232	284	301	354	.8	1.7
472	4	62.2	.090	0	.79	95.2	85.2	90.2	12.4	85	98	110	129	152	201	250	320	347	388	1.0	2.2
473	1	64.0	.010	0	1.93	93.5	88.4	91.0	11.4	100	105	115	133	150	189	238	295	316	344	1.0	1.0
474	8	61.0	.020	0	1.48	94.7	85.4	90.1	11.6	86	96	111	134	160	210	260	334	361	395	1.0	2.5
475	3	58.6	-	-	.82	92.3	82.8	87.6	11.6	86	98	113	139	171	213	272	335	360	388	1.0	2.0
476	8	63.1	.020	0	1.32	94.1	85.5	89.8	11.9	86	96	109	130	153	203	257	336	366	400	1.0	2.2
477	8	61.1	.020	0	1.09	94.5	85.4	90.0	11.4	90	100	116	137	159	202	248	324	357	401	1.0	2.3
478	8	61.3	.010	1	.37	94.1	85.9	90.0	11.5	87	97	112	132	152	195	243	311	348	394	1.0	2.4
479	8	61.4	.040	1	1.90	94.1	85.1	89.6	10.8	89	101	115	135	156	198	247	328	362	394	1.1	2.2
480	8	58.5	.050	1	.49	94.2	85.3	89.8	10.9	86	95	114	140	169	219	267	334	366	424	1.0	2.7
AVERAGE		61.5	.034	0	1.21	93.9	85.5	89.7	11.2	89	99	113	135	158	203	252	321	350	389	1.0	2.1
SAMPLES	67																				

TABLE 3. - MOTOR GASOLINE SURVEY, WINTER 1970-71
AVERAGE DATA FOR DIFFERENT BRANDS--CONTINUED

DIST. 16 NORTH CALIFORNIA--CONTINUED

PREMIUM-PRICE GASOLINE

ITEM	SAMPLES	GR., ASTM D287 API	SULF, ASTM D1266 WT %	GUM, ASTM D381 MG	LEAD, ASTM D526 G/GAL	OCTANE NUMBER RES, ASTM D908	OCTANE NUMBER MOT, ASTM D357	OCTANE NUMBER R+M --- 2	RVP, ASTM D323 LB	DISTILLATION, ASTM D86 TEMPERATURE, F (CORRECTED TO 760 MM HG) IBP	PERCENT EVAPORATED 5	10	20	30	50	70	90	95	EP	RES %	LOSS %
481	8	60.2	0.021	1	2.31	99.8	91.7	95.8	11.9	85	95	113	140	168	217	261	331	358	392	1.0	2.9
482	2	58.6	-	-	2.65	100.0	93.1	96.6	10.7	90	106	122	146	174	220	261	320	345	386	1.0	1.0
483	5	63.0	.018	2	2.08	100.3	91.7	96.0	12.5	84	95	107	130	157	205	248	318	348	384	1.0	2.0
484	1	59.4	.010	0	2.69	99.0	91.7	95.4	10.3	92	107	119	139	159	200	250	302	323	366	1.0	3.0
485	8	58.4	.018	0	2.53	100.0	92.0	96.0	11.3	86	96	115	142	174	226	274	340	365	390	1.0	2.7
486	3	58.8	-	-	2.29	100.2	92.2	96.2	10.7	88	101	118	142	172	224	270	336	360	389	1.0	2.0
487	8	58.5	.008	1	2.44	100.2	91.9	96.1	10.0	90	105	124	151	179	222	261	327	359	401	1.0	2.3
488	2	58.6	-	-	2.99	99.7	92.3	96.0	10.8	89	105	122	146	170	219	264	327	355	420	1.0	2.0
489	8	58.4	.019	0	2.77	99.8	91.2	95.5	11.2	87	98	115	137	160	207	253	322	353	398	1.0	2.5
490	8	58.4	.017	1	2.72	99.8	91.2	95.5	11.1	87	98	115	136	158	203	247	312	341	397	1.0	2.3
491	8	60.3	.021	6	2.41	99.9	92.0	96.0	11.1	87	97	115	137	167	215	257	323	355	405	1.0	2.8
492	8	57.4	.045	2	3.63	99.4	91.5	95.5	11.6	87	96	114	140	167	220	266	326	365	418	1.0	2.8
AVERAGE		59.2	.020	1	2.63	99.8	91.9	95.9	11.1	88	100	117	141	167	215	259	324	352	396	1.0	2.4
SAMPLES	69																				

TABLE 3. - MOTOR GASOLINE SURVEY, WINTER 1970-71
AVERAGE DATA FOR DIFFERENT BRANDS--CONTINUED

DIST. 17 SOUTH CALIFORNIA

REGULAR-PRICE GASOLINE

ITEM	SAMPLES	GR., ASTM D287 API	SULF, ASTM D1266 WT %	GUM, ASTM D381 MG	LEAD, ASTM D526 G/GAL	OCTANE NUMBER RES, ASTM D908	OCTANE NUMBER MOT, ASTM D357	OCTANE NUMBER R+M --- 2	RVP, ASTM D323 LB	DISTILLATION, ASTM D86 TEMPERATURE, F (CORRECTED TO 760 MM HG) IBP	PERCENT EVAPORATED 5	10	20	30	50	70	90	95	EP	RES %	LOSS %
493	9	59.7	0.053	2	2.57	94.8	85.9	90.4	12.6	85	91	109	134	160	214	268	333	360	399	1.0	3.0
494	3	67.2	.044	-	2.98	91.4	85.8	88.6	13.2	86	99	108	122	133	158	198	300	332	388	1.0	1.0
495	5	60.5	.032	2	2.09	94.0	85.8	89.9	12.2	85	98	111	130	150	200	264	340	369	404	1.1	1.4
496	3	59.8	.005	1	.47	91.7	83.0	87.4	10.9	88	99	112	131	151	204	273	350	383	426	1.1	1.9
497	7	59.2	.081	2	2.59	94.0	85.4	89.7	10.0	92	107	121	138	158	198	256	350	379	408	1.1	1.2
498	3	61.7	.056	-	1.09	91.4	83.9	87.7	12.9	85	97	112	134	156	200	244	319	364	408	1.0	2.5
499	13	59.9	.117	2	1.79	94.2	85.6	89.9	10.9	90	103	116	136	156	204	269	350	379	408	1.2	1.8
500	9	55.5	.050	2	1.53	94.3	85.5	89.9	10.5	89	100	113	134	158	230	314	378	396	424	1.1	1.7
501	11	60.0	.089	1	.48	94.5	85.0	89.8	11.4	87	99	113	133	154	205	260	332	364	402	1.1	1.9
502	10	56.4	.047	1	.70	94.5	84.6	89.6	10.3	88	103	118	143	170	227	287	345	370	409	1.0	1.8
503	11	58.9	.036	2	.50	94.1	85.1	89.6	11.9	86	97	110	136	167	223	281	363	392	416	1.1	2.6
AVERAGE		59.9	.055	2	1.53	93.5	85.1	89.3	11.5	87	99	113	134	156	206	265	342	372	408	1.1	1.9
SAMPLES	84																				

TABLE 3. - MOTOR GASOLINE SURVEY, WINTER 1970-71
AVERAGE DATA FOR DIFFERENT BRANDS--CONTINUED

DIST. 17 SOUTH CALIFORNIA--CONTINUED

PREMIUM-PRICE GASOLINE

ITEM	SAMPLES	GR., ASTM D287 API	SULF, ASTM D1266 WT %	GUM, ASTM D381 MG	LEAD, ASTM D526 G/GAL	OCTANE NUMBER RES, ASTM D908	OCTANE NUMBER MOT, ASTM D357	OCTANE NUMBER R+M --- 2	RVP, ASTM D323 LB	DISTILLATION, ASTM D86 TEMPERATURE, F (CORRECTED TO 760 MM HG) IBP	5	10	20	30	50	70	90	95	EP	RES %	LOSS %
504	9	58.4	0.022	1	2.67	100.1	92.2	96.2	12.7	87	97	110	136	161	227	275	333	357	401	1.1	2.8
505	3	56.5	.039	-	3.20	100.6	92.4	96.5	11.4	87	99	119	147	174	224	266	322	350	404	1.0	2.0
506	5	58.5	.028	1	2.83	100.0	92.0	96.0	12.8	83	95	109	131	156	215	266	324	355	404	1.2	1.8
507	4	60.0	.030	1	2.89	99.9	92.2	96.1	11.0	86	96	112	136	155	211	259	326	358	407	1.1	2.4
508	7	58.1	.031	2	2.57	100.1	91.8	96.0	10.3	87	102	117	144	171	222	267	332	361	390	1.1	1.8
509	3	54.2	.046	-	3.36	100.0	90.9	95.5	11.6	86	101	120	148	178	231	275	333	366	418	1.0	2.0
510	13	58.0	.036	2	2.77	100.1	91.6	95.9	11.3	88	99	116	143	174	221	268	332	367	400	1.2	2.2
511	3	57.8	.039	-	2.57	100.2	91.7	96.0	11.3	86	102	118	141	168	217	262	328	357	412	1.0	1.0
512	9	59.1	.060	1	2.27	100.1	90.8	95.5	10.4	90	101	117	140	165	214	260	327	361	404	1.1	2.0
513	11	59.2	.078	2	2.95	99.7	90.9	95.3	11.0	87	99	115	137	159	212	258	326	361	403	1.1	2.2
514	10	60.8	.053	2	3.24	99.2	92.0	95.6	10.5	88	101	117	142	166	211	253	322	357	396	1.1	2.0
515	11	56.1	.042	2	3.18	99.5	90.7	95.1	12.0	86	97	109	132	158	220	282	353	393	425	1.1	2.5
AVERAGE		58.1	.042	2	2.89	100.0	91.6	95.8	11.4	87	99	115	140	165	219	266	330	362	405	1.1	2.1
SAMPLES	88																				

TABLE 4. - MOTOR GASOLINE SURVEY, WINTER 1970-71
AVERAGE DATA FOR BRANDS IN EACH DISTRICT

REGULAR-PRICE GASOLINE

DISTRICT NO. AND NAME	NO. OF BRANDS	SAMPLES	GR., ASTM D287 API	SULF, ASTM D1266 WT %	GUM, ASTM D381 MG	LEAD, ASTM D526 G/GAL	OCTANE NUMBER RES, ASTM D908	OCTANE NUMBER MOT, ASTM D357	OCTANE NUMBER R+M --- 2	RVP, ASTM D323 LB	DISTILLATION, ASTM D86 TEMPERATURE, F (CORRECTED TO 760 MM HG) IBP	PERCENT EVAPORATED 5	10	20	30	50	70	90	95	EP	RES LOSS %	%
1 NORTHEAST	13	62	63.0	0.042	2	2.04	94.7	86.6	90.7	12.7	80	90	104	124	146	197	257	339	370	406	1.0	2.5
2 MID-ATLANTIC COAST	17	236	63.1	.028	1	1.95	94.7	86.7	90.7	12.6	81	92	104	124	147	196	256	338	371	407	1.0	2.4
3 SOUTHEAST	18	165	62.4	.036	1	2.20	94.7	87.0	90.9	11.6	85	97	110	130	153	201	257	337	370	409	1.0	1.8
4 APPALACHIAN	16	169	62.7	.024	1	1.86	94.6	86.7	90.7	12.6	82	94	105	125	147	196	257	342	375	413	1.0	2.5
5 MICHIGAN	17	101	63.3	.039	2	2.07	94.9	86.9	90.9	13.0	81	88	102	122	145	198	258	341	374	417	.9	3.1
6 NORTH ILLINOIS	12	68	63.2	.044	2	1.99	94.8	86.8	90.8	13.1	82	91	102	121	143	195	255	336	370	405	1.0	2.8
7 CENTRAL MISSISSIPPI	19	110	63.1	.040	2	2.15	94.4	87.1	90.8	12.5	79	93	105	126	149	200	258	339	373	408	.9	1.8
8 LOWER MISSISSIPPI	17	124	62.8	.042	1	2.34	94.0	86.8	90.4	12.0	84	96	108	129	151	199	254	335	367	409	1.0	1.7
9 NORTH PLAINS	13	47	64.3	.063	-	2.00	92.4	85.5	89.0	12.3	82	93	104	122	143	189	244	326	355	401	1.0	2.0
10 CENTRAL PLAINS	18	141	63.5	.035	1	2.05	93.4	86.3	89.9	11.7	81	96	109	129	150	197	253	334	366	402	.9	1.7
11 SOUTH PLAINS	20	136	64.1	.040	1	2.28	93.0	86.6	89.8	11.8	84	96	107	125	145	192	248	334	369	411	1.0	1.7
12 SOUTH TEXAS	15	85	63.6	.025	3	2.62	94.1	87.2	90.7	11.4	87	101	113	130	150	193	244	323	360	403	1.0	1.5
13 SOUTH MOUNTAIN STATES	16	250	62.9	.048	2	2.04	92.3	85.5	88.9	11.2	88	100	113	133	154	199	252	339	373	413	1.0	1.8
14 NORTH MOUNTAIN STATES	13	94	63.7	.054	1	1.90	93.2	85.9	89.6	12.4	86	96	109	131	156	205	257	336	366	404	1.0	2.4
15 PACIFIC NORTHWEST	9	60	64.8	.021	1	2.13	93.1	87.3	90.2	12.1	87	99	109	127	147	191	241	330	367	402	1.1	2.4
16 NORTH CALIFORNIA	11	47	61.5	.034	0	1.91	93.9	85.5	89.7	11.2	89	99	113	135	158	203	252	321	350	389	1.0	2.1
17 SOUTH CALIFORNIA	11	84	59.9	.055	2	1.53	93.5	85.1	89.3	11.5	87	99	113	134	156	206	265	342	372	408	1.1	1.9
AVERAGE			63.1	.039	1	2.02	93.9	86.4	90.2	12.1	84	95	108	127	149	197	253	335	368	406	1.0	2.1
SAMPLES 1,999																						

TABLE 4. - MOTOR GASOLINE SURVEY, WINTER 1970-71
AVERAGE DATA FOR BRANDS IN EACH DISTRICT--CONTINUED

PREMIUM-PRICE GASOLINE

DISTRICT NO. AND NAME	NO. OF BRANDS	SAMPLES	GR., ASTM D287 API	SULF, ASTM D1266 WT %	GUM, ASTM D381 MG	LEAD, ASTM D526 G/GAL	OCTANE NUMBER RES, ASTM D908	OCTANE NUMBER MOT, ASTM D357	OCTANE NUMBER R+M --- 2	RVP, ASTM D323 LB	DISTILLATION, ASTM D86 TEMPERATURE, F (CORRECTED TO 760 MM HG) IBP	PERCENT EVAPORATED 5	10	20	30	50	70	90	95	EP	RES %	LOSS %
1 NORTHEAST	14	69	61.6	0.016	2	2.56	100.4	92.0	96.2	12.6	80	89	104	126	152	208	255	317	348	388	1.0	2.7
2 MID-ATLANTIC COAST	18	247	61.7	.014	1	2.52	100.3	92.0	96.2	12.9	80	91	104	125	151	209	257	321	352	392	.9	2.5
3 SOUTHEAST	18	166	61.7	.014	1	2.55	100.2	92.1	96.2	11.6	84	96	110	132	158	212	257	319	348	394	1.0	1.9
4 APPALACHIAN	16	167	63.0	.013	1	2.43	100.2	92.4	96.3	13.0	80	91	105	126	152	204	248	319	352	398	.9	2.8
5 MICHIGAN	18	91	64.0	.021	2	2.48	99.8	92.6	96.2	13.1	80	88	103	126	155	209	249	320	353	405	.8	3.7
6 NORTH ILLINOIS	12	70	63.5	.025	1	2.64	99.7	92.3	96.0	12.9	83	92	105	128	156	207	249	321	357	397	1.0	2.8
7 CENTRAL MISSISSIPPI	19	109	63.5	.025	4	2.69	100.0	92.7	96.4	12.7	78	92	105	128	155	208	251	320	353	396	.9	1.9
8 LOWER MISSISSIPPI	17	126	63.1	.029	1	2.82	100.1	92.6	96.4	12.2	83	95	108	131	159	211	252	322	354	398	1.0	1.8
9 NORTH PLAINS	13	49	64.9	.035	-	2.63	99.2	92.1	95.7	12.3	82	93	107	132	160	208	245	320	350	398	1.1	2.1
10 CENTRAL PLAINS	18	141	63.5	.021	1	2.42	99.7	92.4	96.1	11.6	80	93	107	130	155	208	251	321	350	395	.8	2.1
11 SOUTH PLAINS	20	139	63.6	.026	1	2.65	99.5	92.6	96.1	11.9	85	96	110	134	161	212	256	325	358	402	1.0	1.8
12 SOUTH TEXAS	15	86	62.0	.017	4	3.00	100.0	92.6	96.3	11.3	86	100	113	134	157	205	251	317	348	394	1.0	1.4
13 SOUTH MOUNTAIN STATES	16	252	63.1	.031	2	2.53	98.7	91.7	95.2	11.0	86	100	114	139	165	214	256	329	364	404	1.0	2.0
14 NORTH MOUNTAIN STATES	13	98	65.6	.030	1	2.41	99.5	91.7	95.6	12.2	85	96	111	137	166	213	247	320	350	396	1.0	2.9
15 PACIFIC NORTHWEST	9	59	62.4	.013	1	2.40	99.9	91.5	95.7	12.1	86	97	110	134	160	211	252	312	343	382	1.1	2.7
16 NORTH CALIFORNIA	12	69	59.2	.020	1	2.63	99.8	91.9	95.9	11.1	88	100	117	141	167	215	259	324	352	396	1.0	2.4
17 SOUTH CALIFORNIA	12	88	58.1	.042	2	2.89	100.0	91.6	95.8	11.4	87	99	115	140	165	219	266	330	362	405	1.1	2.1
AVERAGE			62.6	.023	2	2.60	99.8	92.2	96.0	12.1	83	95	109	132	158	210	253	321	353	396	1.0	2.3
SAMPLES 2,026																						

TABLE 5. - MOTOR GASOLINE SURVEY, WINTER 1970-71
DATA FOR SOME ADDITIONAL GRADES

THIRD-GRADE GASOLINE

DISTRICT AND ITEM NUMBERS	SAMPLES	GR., ASTM D287 API	SULF, ASTM D1266 WT %	GUM, ASTM D381 MG	LEAD, ASTM D526 G/GAL	OCTANE NUMBER RES, ASTM D908	OCTANE NUMBER MOT, ASTM D357	OCTANE NUMBER R+M --- 2	RVP, ASTM D323 LB	DISTILLATION, ASTM D86 TEMPERATURE, F (CORRECTED TO 760 MM HG) IBP	PERCENT EVAPORATED 5	10	20	30	50	70	90	95	EP	RES LOSS %	%
1 516	1	62.1	-	-	-	96.5	87.8	92.2	11.5	80	92	103	120	138	195	254	319	342	387	1.0	1.0
1 517	4	58.4	0.023	2	0.49	91.5	84.4	88.0	11.4	83	96	112	139	169	232	294	355	389	422	1.0	2.0
1 518	4	60.4	.009	-	.00	91.0	83.2	87.1	8.3	93	106	121	142	162	226	275	323	345	388	1.0	1.0
1 519	1	63.0	.032	1	1.38	93.5	85.9	89.7	12.8	82	-	98	117	138	192	266	360	-	425	1.0	5.0
2 520	4	61.9	.085	2	.03	92.9	82.9	87.9	10.1	86	98	112	130	150	198	259	320	340	366	1.0	2.0
2 521	3	56.3	.009	1	.04	91.7	83.1	87.4	10.4	85	98	113	137	164	229	287	340	369	415	1.2	2.3
2 522	17	60.5	.018	0	.59	91.1	84.6	87.9	12.0	85	98	110	136	165	225	286	349	373	413	1.2	3.1
2 523	10	60.7	.010	1	.05	91.4	83.1	87.3	9.3	93	105	119	142	166	223	275	339	363	400	1.0	1.6
2 524	4	61.9	.020	1	1.10	93.0	85.3	89.2	12.1	78	86	99	118	138	194	269	356	387	418	.9	3.1
3 525	1	58.1	.011	1	.00	92.2	83.5	87.9	10.4	94	106	115	135	156	211	284	334	360	388	1.0	2.5
3 526	1	62.4	-	-	2.67	96.1	89.0	92.6	11.9	83	87	101	119	157	206	260	330	365	416	1.0	1.5
3 527	7	62.0	.054	1	.62	91.6	84.3	88.0	10.8	85	98	110	132	155	209	266	339	370	411	1.0	1.4
3 528	7	60.7	.023	-	.04	91.8	82.6	87.2	9.2	90	110	124	147	171	217	270	343	374	418	1.1	.9
3 529	4	63.1	.023	2	.20	91.7	83.2	87.5	8.5	92	110	123	140	156	192	236	329	366	414	1.0	1.8
3 530	1	60.8	.020	2	1.63	93.3	85.8	89.6	10.5	85	97	111	133	149	200	265	352	382	418	1.0	2.0
4 531	1	63.1	.026	3	.00	91.6	82.3	87.0	10.7	90	107	117	137	160	207	253	329	358	400	1.0	1.0
4 532	5	57.8	.024	4	.00	91.8	83.3	87.6	10.9	86	103	115	140	168	232	287	335	357	406	1.0	2.0
4 533	12	59.7	.018	1	.55	91.6	84.5	88.1	11.9	84	98	111	137	164	217	276	344	374	409	1.0	2.0
4 534	2	61.5	.029	1	.00	92.5	83.4	88.0	12.6	88	96	108	133	162	225	279	357	391	429	1.0	4.5
4 535	10	57.3	.029	3	.02	91.4	83.4	87.4	9.5	90	112	128	159	188	231	274	334	365	415	1.0	1.2
4 536	7	61.2	.016	3	.01	91.6	82.3	87.0	11.7	88	100	112	129	149	201	264	326	350	389	1.0	2.2
4 537	2	63.7	.019	5	1.40	92.9	86.3	89.6	14.5	84	91	99	119	140	189	266	355	383	418	1.0	5.5
5 538	4	62.2	.033	0	.00	91.2	83.1	87.2	11.2	87	99	112	135	159	207	249	309	333	383	1.0	3.0
5 539	3	62.9	-	-	.35	90.5	84.3	87.4	13.0	80	91	105	126	154	209	260	333	364	400	1.0	2.0
5 540	3	56.2	-	-	.00	91.6	83.4	87.5	9.2	86	108	128	158	186	234	276	336	366	410	.9	1.6
5 541	1	61.5	.009	3	.00	92.2	82.0	87.1	11.3	90	100	109	125	143	192	258	325	348	390	1.0	3.0

TABLE 5. - MOTOR GASOLINE SURVEY, WINTER 1970-71
DATA FOR SOME ADDITIONAL GRADES--CONTINUED

THIRD-GRADE GASOLINE--CONTINUED

DISTRICT AND ITEM NUMBERS	SAMPLES	GR., ASTM D287 API	SULF, ASTM D1266 WT %	GUM, ASTM D381 MG	LEAD, ASTM D526 G/GAL	OCTANE NUMBER RES, ASTM D908	OCTANE NUMBER MOT, ASTM D357	OCTANE NUMBER R+M --- 2	RVP, ASTM D323 LB	DISTILLATION, ASTM D86 TEMPERATURE, F (CORRECTED TO 760 MM HG) IBP	PERCENT EVAPORATED 5	10	20	30	50	70	90	95	EP	RES %	LOSS %
5 542	3	63.0	.020	3	1.21	92.7	85.7	89.2	14.7	80	89	95	117	140	198	279	362	390	431	.9	5.3
6 543	3	64.7	.032	-	.00	91.3	82.9	87.1	-	-	-	-	-	-	-	-	-	-	-	-	-
6 544	3	61.0	.035	-	.00	91.4	82.8	87.1	11.3	80	94	109	136	174	225	266	335	368	415	.9	2.6
6 545	2	60.5	.008	-	.04	92.3	83.8	88.1	11.7	79	89	104	128	155	207	246	315	350	400	.8	2.7
6 546	4	57.1	.029	-	.00	91.4	83.1	87.3	9.2	91	105	128	155	178	216	258	320	355	400	1.0	2.0
7 547	3	62.6	.044	-	.00	91.4	83.7	87.6	-	-	-	-	-	-	-	-	-	-	-	-	-
7 548	1	63.0	-	-	2.22	93.0	87.2	90.1	-	-	-	-	-	-	-	-	-	-	-	-	-
7 549	9	61.5	.062	-	.77	91.7	84.8	88.3	11.5	80	98	110	132	154	209	267	340	372	394	.9	1.1
7 550	2	61.7	-	-	.00	92.2	84.0	88.1	11.5	78	94	110	134	162	208	248	320	352	394	.7	1.3
7 551	8	57.5	.036	2	.00	91.3	83.6	87.5	9.6	89	105	126	153	179	220	268	329	364	407	.9	1.8
7 552	1	63.1	-	-	.00	90.4	83.0	86.7	-	-	-	-	-	-	-	-	-	-	-	-	-
8 553	9	59.4	.054	-	.59	91.3	84.8	88.1	-	-	-	-	-	-	-	-	-	-	-	-	-
8 554	9	61.0	.010	-	.00	91.4	82.8	87.1	-	-	-	-	-	-	-	-	-	-	-	-	-
8 555	3	65.8	-	-	.02	91.5	83.9	87.7	-	-	-	-	-	-	-	-	-	-	-	-	-
9 556	1	62.4	-	-	.00	91.4	82.6	87.0	-	-	-	-	-	-	-	-	-	-	-	-	-
9 557	2	66.2	-	-	.00	92.2	86.2	89.2	-	-	-	-	-	-	-	-	-	-	-	-	-
10 558	6	61.0	.047	-	.00	91.4	81.7	86.6	-	-	-	-	-	-	-	-	-	-	-	-	-
10 559	2	66.2	-	-	1.78	92.7	86.3	89.5	-	-	-	-	-	-	-	-	-	-	-	-	-
10 560	3	61.8	.033	-	.52	90.9	84.6	87.8	-	-	-	-	-	-	-	-	-	-	-	-	-
10 561	6	59.3	.021	-	.01	91.1	83.1	87.1	10.9	81	91	109	138	172	218	261	333	365	418	1.0	3.0
11 562	2	63.6	-	-	2.22	93.1	86.6	89.9	-	-	-	-	-	-	-	-	-	-	-	-	-
11 563	3	61.5	.051	-	.65	90.9	84.2	87.6	11.1	84	91	101	121	142	199	262	339	374	410	1.2	1.3
11 564	1	61.0	-	-	.00	91.1	83.5	87.3	-	-	-	-	-	-	-	-	-	-	-	-	-
12 565	2	59.8	.014	2	.05	91.3	84.3	87.8	10.5	90	101	113	136	154	215	260	312	339	388	1.0	2.0
12 566	2	63.2	.029	-	2.63	93.9	87.3	90.6	-	-	-	-	-	-	-	-	-	-	-	-	-
12 567	1	58.9	.024	2	.06	96.7	87.3	92.0	11.1	78	86	100	122	146	204	253	323	358	386	1.0	2.0

TABLE 5. - MOTOR GASOLINE SURVEY, WINTER 1970-71
DATA FOR SOME ADDITIONAL GRADES--CONTINUED

THIRD-GRADE GASOLINE--CONTINUED

DISTRICT AND ITEM NUMBERS	SAMPLES	GR., ASTM D287 API	SULF, ASTM D1266 WT %	GUM, ASTM D381 MG	LEAD, ASTM D526 G/GAL	OCTANE NUMBER RES, ASTM D908	OCTANE NUMBER MOT, ASTM D357	OCTANE NUMBER R+M --- 2	RVP, ASTM D323 LB	DISTILLATION, ASTM D86 TEMPERATURE, F (CORRECTED TO 760 MM HG) IBP	PERCENT EVAPORATED 5	10	20	30	50	70	90	95	EP	RES %	LOSS %
12 568	7	60.8	.037	6	.84	91.8	85.1	88.5	9.9	88	101	113	133	154	202	256	322	361	399	1.0	1.5
12 569	4	61.7	.011	5	.01	91.4	83.8	87.6	10.5	84	98	109	129	152	209	264	316	338	370	1.0	1.0
13 570	6	60.0	.027	-	.00	88.9	81.2	85.1	-	-	-	-	-	-	-	-	-	-	-	-	-
13 571	3	56.5	-	-	.00	91.5	82.2	86.9	8.5	97	113	129	154	177	228	273	332	357	406	1.0	1.0
13 572	3	64.5	-	-	2.11	91.6	85.7	88.7	-	-	-	-	-	-	-	-	-	-	-	-	-
13 573	1	58.3	.060	1	2.74	96.1	88.0	92.1	10.4	90	109	122	144	171	219	269	344	380	425	1.0	2.0
13 574	10	59.1	.037	1	.00	91.5	82.9	87.2	9.6	92	122	125	153	185	222	254	320	344	393	.9	.7
13 575	10	57.9	.032	1	.00	90.4	81.7	86.1	7.4	94	116	131	154	178	222	265	335	364	413	.9	.7
14 576	1	64.9	-	-	1.41	91.6	85.6	88.6	-	-	-	-	-	-	-	-	-	-	-	-	-
14 577	2	62.4	.008	-	.00	90.4	82.0	86.2	-	-	-	-	-	-	-	-	-	-	-	-	-
14 578	3	60.8	.010	2	.03	90.9	82.7	86.8	7.5	100	118	130	150	170	212	255	315	346	384	1.0	2.0
15 579	3	56.0	.070	-	.00	90.9	81.7	86.3	-	-	-	-	-	-	-	-	-	-	-	-	-
15 580	4	62.6	.014	2	.00	90.5	82.0	86.3	12.5	82	97	109	129	156	206	252	319	350	400	1.0	4.0
15 581	4	63.5	.019	3	.00	90.6	82.7	86.7	7.2	108	126	135	147	162	194	234	314	344	409	1.0	2.0
16 582	3	56.3	.080	2	.03	91.0	82.6	86.8	8.0	99	113	127	152	179	235	282	341	364	408	1.0	1.6
16 583	1	60.8	.010	0	2.78	96.6	90.4	93.5	10.3	95	99	107	127	149	195	246	301	323	366	1.0	2.0
16 584	6	57.3	.010	1	.00	91.3	82.5	86.9	7.6	99	112	125	147	169	210	260	331	359	415	1.0	1.6
16 585	3	60.3	-	-	1.98	92.0	86.4	89.2	-	-	-	-	-	-	-	-	-	-	-	-	-
16 586	3	62.0	.020	1	.00	90.9	82.2	86.6	7.2	104	124	134	149	163	197	235	314	348	405	1.0	.8
17 587	5	56.3	.060	2	.02	91.5	82.3	86.9	8.6	97	114	128	152	176	230	280	339	366	407	1.2	.7
17 588	1	61.0	-	-	1.51	95.6	87.8	91.7	-	82	94	106	126	149	199	257	332	360	427	1.1	1.4
17 589	7	56.8	.007	2	.01	91.6	83.5	87.6	7.7	96	120	136	160	185	229	272	333	364	407	1.1	.8
17 590	3	63.0	.033	-	1.57	91.6	84.8	88.2	-	-	-	-	-	-	-	-	-	-	-	-	-
17 591	5	56.1	.043	1	.05	91.4	82.3	86.9	7.1	97	119	132	151	172	225	275	324	351	410	1.2	.8
17 592	5	54.9	.001	1	.01	91.4	82.9	87.2	7.8	97	116	134	162	188	233	272	323	343	399	1.2	1.0
AVERAGE		60.8	.028	2	.85	92.0	84.1	88.1	10.3	88	103	115	138	162	212	265	332	360	404	1.0	2.0
SAMPLES	313																				

TABLE 5. - MOTOR GASOLINE SURVEY, WINTER 1970-71
DATA FOR SOME ADDITIONAL GRADES--CONTINUED

INTERMEDIATE-GRADE GASOLINE

DISTRICT AND ITEM NUMBERS	SAMPLES	GR., ASTM D287 API	SULF, ASTM D1266 WT %	GUM, ASTM D381 MG	LEAD, ASTM D526 G/GAL	OCTANE NUMBER RES, ASTM D908	OCTANE NUMBER MOT, ASTM D357	OCTANE NUMBER R+M --- 2	RVP, ASTM D323 LB	DISTILLATION, ASTM D86 TEMPERATURE, F (CORRECTED TO 760 MM HG) IBP	PERCENT EVAPORATED 5	10	20	30	50	70	90	95	EP	RES LOSS % %
1 593	3	64.3	0.017	-	0.48	96.5	86.3	91.4	15.0	72	84	97	116	140	192	238	288	308	360	0.7 2.3
2 594	13	63.0	.016	1	.48	96.6	86.7	91.7	15.1	74	84	96	114	137	192	244	300	326	372	.8 3.0
3 595	2	62.8	.024	-	2.26	96.3	88.7	92.5	-	-	-	-	-	-	-	-	-	-	-	- -
3 596	4	59.9	.014	0	.49	96.8	86.7	91.8	11.8	86	98	108	126	148	201	248	298	324	366	.9 1.4
4 597	6	62.5	-	-	.41	96.7	86.9	91.8	14.3	75	87	99	122	144	195	241	308	339	388	.7 2.6
7 598	2	56.5	-	-	.41	96.9	86.6	91.8	14.6	76	88	102	122	152	214	252	308	338	390	.7 2.3
8 599	9	60.8	.009	-	.46	96.3	87.1	91.7	12.9	81	91	102	123	147	201	245	294	321	376	.9 1.8
11 600	3	61.2	.020	-	.50	96.5	86.9	91.7	12.6	85	92	103	123	143	191	244	300	323	368	.7 1.8
12 601	6	60.1	.016	-	.50	96.7	86.7	91.7	11.3	86	98	110	130	150	205	257	309	331	369	.8 1.5
13 602	3	66.8	-	-	2.84	94.1	88.4	91.3	11.4	85	95	106	125	146	191	235	326	366	409	.8 1.2
16 603	1	62.9	-	-	.55	97.7	85.6	91.7	-	-	-	-	-	-	-	-	-	-	-	- -
17 604	3	58.9	.056	-	2.39	95.7	87.1	91.4	12.1	86	101	114	135	158	206	264	346	380	416	1.0 1.5
17 605	1	59.4	.070	2	2.84	96.8	88.5	92.7	10.5	94	112	121	139	157	202	254	332	366	413	1.3 .7
17 606	1	60.2	.050	1	.00	93.2	83.2	88.2	8.1	97	122	140	161	179	201	236	353	400	409	1.5 1.5
AVERAGE		61.4	.029	1	1.12	96.2	86.8	91.5	12.5	83	96	108	128	150	199	247	314	344	386	.9 1.8
SAMPLES	57																			

TABLE 5. - MOTOR GASOLINE SURVEY, WINTER 1970-71
DATA FOR SOME ADDITIONAL GRADES--CONTINUED

SUPER-PREMIUM GASOLINE

DISTRICT AND ITEM NUMBERS	SAMPLES	GR., ASTM D287 API	SULF, ASTM D1266 WT %	GUM, ASTM D381 MG	LEAD, ASTM D526 G/GAL	OCTANE NUMBER RES, ASTM D908	OCTANE NUMBER MOT, ASTM D357	OCTANE NUMBER R+M --- 2	RVP, ASTM D323 LB	DISTILLATION, ASTM D86 TEMPERATURE, F (CORRECTED TO 760 MM HG) IBP	PERCENT EVAPORATED 5	10	20	30	50	70	90	95	EP	RES %	LOSS %
1 607	1	59.6	0.010	1	3.39	102.6	93.6	98.1	12.7	82	92	101	124	149	210	260	329	364	408	1.0	3.0
2 608	2	61.5	.014	1	3.32	102.5	93.8	98.2	12.6	79	90	104	126	149	212	261	326	356	403	1.0	2.5
3 609	1	59.7	.010	2	3.42	102.7	93.5	98.1	9.8	84	97	113	138	165	222	264	326	361	409	1.0	2.0
4 610	2	62.1	.001	0	2.93	102.1	94.8	98.5	14.5	83	89	102	126	156	215	249	299	325	365	1.0	5.0
5 611	2	62.0	.001	1	2.68	101.8	94.7	98.3	14.9	81	-	97	123	153	213	248	297	326	379	3.1	4.2
12 612	1	62.1	.009	2	1.45	100.8	92.5	96.7	10.8	86	92	104	120	136	188	235	290	318	360	1.0	1.5
AVERAGE		61.2	.008	1	2.87	102.1	93.8	98.0	12.6	83	92	104	126	151	210	253	311	342	387	1.4	3.0
SAMPLES	9																				

TABLE 6. - MOTOR GASOLINE SURVEY, WINTER 1970-71
ANALYSES OF LOW-LEAD CONTENT GASOLINE

DISTRICT	CITY	SAMPLES	GR., ASTM D287 API	SULF, ASTM D1266 WT %	GUM, ASTM D381 MG	LEAD, ASTM D526 G/GAL	OCTANE NUMBER RES, ASTM D908	OCTANE NUMBER MOT, ASTM D357	OCTANE NUMBER R+M --- 2	RVP, ASTM D323 LB	DISTILLATION, ASTM D86 TEMPERATURE, F (CORRECTED TO 760 MM HG) IBP	PERCENT EVAPORATED 5	10	20	30	50	70	90	95	EP	RES %	LOSS %
1	BOSTON	4	58.0	.008	-	.00	100.5	90.6	95.6	12.6	77	86	103	128	159	218	244	293	324	360	.8	3.2
1	BOSTON	5	64.2	.020	2	.54	96.4	86.3	91.4	14.7	75	84	96	113	136	188	240	295	316	354	.9	2.7
1	BOSTON	4	58.4	.023	2	.49	91.5	84.4	88.0	11.4	83	96	112	139	169	232	294	355	389	422	1.0	2.0
1	BOSTON	3	60.7	.009	-	.00	90.9	83.3	87.1	-	-	-	-	-	-	-	-	-	-	-	-	-
2	BALTIMORE	4	53.8	.002	2	.15	100.8	90.7	95.8	12.2	86	101	111	132	161	222	256	312	339	382	.8	1.7
2	BALTIMORE	3	64.1	-	-	.52	96.3	86.7	91.5	14.6	72	88	101	118	142	198	250	298	324	370	.6	1.4
2	BALTIMORE	3	61.6	.044	0	.63	90.7	84.4	87.6	11.8	87	100	109	128	152	210	270	345	375	420	1.0	1.5
2	NEW YORK	4	56.2	-	2	.01	100.8	90.8	95.8	12.9	79	93	107	132	165	221	246	302	333	378	.9	1.9
2	NEW YORK	3	63.9	-	-	.50	97.0	86.6	91.8	15.6	76	84	100	123	149	198	240	296	320	386	.7	3.3
2	NEW YORK	4	60.8	.013	0	.55	96.4	86.4	91.4	13.3	85	98	110	133	158	205	251	306	335	373	.9	2.4
2	NEW YORK	3	61.8	-	-	.04	92.9	83.2	88.1	-	-	-	-	-	-	-	-	-	-	-	-	-
2	NEW YORK	5	61.6	.007	0	.11	91.7	84.1	87.9	11.6	89	97	109	129	153	214	266	334	362	398	1.3	1.7
2	NEW YORK	3	60.7	.005	0	.47	91.6	84.7	88.2	13.5	100	111	121	140	168	227	291	349	371	407	1.5	3.5
2	NEW YORK	1	56.1	.001	0	.05	91.4	83.1	87.3	10.8	93	109	119	140	165	231	289	344	370	416	1.6	.9
2	PHILADELPHIA	6	53.4	.004	1	.01	100.7	90.1	95.4	11.9	80	94	105	133	166	230	258	308	335	381	1.0	3.3
2	PHILADELPHIA	6	64.0	.020	1	.45	96.2	86.7	91.5	14.8	75	82	92	110	131	186	245	307	325	371	1.0	4.5
2	PHILADELPHIA	1	56.6	.018	1	.08	92.0	83.0	87.5	11.2	81	102	114	140	168	234	291	341	368	418	1.0	2.0
2	PHILADELPHIA	6	58.7	.012	1	.54	91.1	84.7	87.9	11.6	80	92	108	140	174	235	296	353	377	416	1.2	3.8
2	PHILADELPHIA	1	58.5	.006	1	.04	91.0	82.0	86.5	8.0	97	113	126	148	173	239	292	342	358	393	1.0	1.5
2	RICHMOND	3	51.2	-	-	.00	101.0	90.3	95.7	11.3	80	92	108	134	166	232	260	310	334	380	.8	1.7
2	RICHMOND	3	59.5	-	-	.43	96.7	86.6	91.7	14.5	70	84	96	115	144	212	253	304	334	384	.4	1.4
2	RICHMOND	1	61.3	-	-	.74	93.0	85.1	89.1	-	-	-	-	-	-	-	-	-	-	-	-	-
2	RICHMOND	3	60.4	-	-	.00	91.1	82.4	86.8	9.3	88	102	119	144	168	214	265	346	374	414	.7	1.3
2	RICHMOND	3	62.5	-	-	.63	90.9	84.5	87.7	12.0	82	93	106	126	150	208	266	340	368	400	1.0	2.0
3	ATLANTA	4	55.9	.001	2	.00	101.3	90.8	96.1	13.0	80	90	102	131	173	231	256	303	326	357	1.0	2.5
3	ATLANTA	3	60.0	.023	-	.05	91.8	82.6	87.2	9.2	90	110	124	147	171	217	270	343	374	418	1.1	.9
3	ATLANTA	2	62.6	.057	-	.53	91.7	84.6	88.2	11.9	82	94	107	129	152	208	262	332	365	414	.9	1.1
3	BIRMINGHAM	2	52.9	-	-	.03	101.7	91.0	96.4	-	-	-	-	-	-	-	-	-	-	-	-	-
3	BIRMINGHAM	3	59.7	-	-	.50	96.8	86.8	91.8	13.0	80	90	100	120	145	202	245	292	327	384	.7	1.8
3	BIRMINGHAM	2	62.9	-	-	.00	92.1	83.0	87.6	-	-	-	-	-	-	-	-	-	-	-	-	-
3	BIRMINGHAM	3	61.5	-	-	.05	91.8	82.5	87.2	-	-	-	-	-	-	-	-	-	-	-	-	-
3	BIRMINGHAM	2	62.5	-	-	.60	91.5	84.3	87.9	-	-	-	-	-	-	-	-	-	-	-	-	-
3	CHARLOTTE	1	60.7	-	-	.00	91.5	-	45.8	-	-	-	-	-	-	-	-	-	-	-	-	-

TABLE 6. - MOTOR GASOLINE SURVEY, WINTER 1970-71
ANALYSES OF LOW-LEAD CONTENT GASOLINE--CONTINUED

DISTRICT	CITY	SAMPLES	GR., ASTM D287 API	SULF, ASTM D1266 WT %	GUM, ASTM D381 MG	LEAD, ASTM D526 G/GAL	OCTANE NUMBER RES, ASTM D908	OCTANE NUMBER MOT, ASTM D357	OCTANE NUMBER R+M --- 2	RVP, ASTM D323 LB	DISTILLATION, ASTM D86 TEMPERATURE, F (CORRECTED TO 760 MM HG) IBP	PERCENT EVAPORATED 5	10	20	30	50	70	90	95	EP	RES %	LOSS %
3	JACKSONVILLE	1	61.1	.059	1	.64	90.9	84.0	87.5	9.9	86	97	110	133	158	211	268	343	376	410	1.0	2.0
3	MIAMI	3	54.4	.004	1	.00	98.2	88.3	93.3	11.1	89	101	113	143	180	233	274	325	345	377	1.0	2.5
3	MIAMI	1	60.4	.014	0	.46	96.9	86.4	91.7	10.6	91	106	115	131	150	199	251	303	321	348	1.0	1.0
3	MIAMI	1	61.6	.045	1	.56	92.7	84.1	88.4	10.7	86	104	114	134	156	209	268	343	370	408	1.0	1.0
4	BUFFALO	1	56.0	.019	-	.00	101.2	90.7	96.0	-	-	-	-	-	-	-	-	-	-	-	-	-
4	BUFFALO	3	63.8	-	-	.41	96.9	87.2	92.1	12.9	76	91	104	127	152	196	236	320	360	408	.M	1.7
4	BUFFALO	2	59.6	-	-	.00	91.6	83.0	87.3	-	-	-	-	-	-	-	-	-	-	-	-	-
4	BUFFALO	3	58.1	-	-	.45	90.9	83.6	87.3	11.7	76	91	109	140	174	230	296	357	384	414	.9	1.1
4	CINCINNATI	1	61.4	-	-	.75	95.7	86.0	90.9	13.6	76	84	98	118	142	202	256	328	352	386	.9	3.1
4	CINCINNATI	1	60.5	.017	1	.57	92.3	84.6	88.5	12.4	84	97	106	125	147	198	261	329	357	392	1.0	2.0
4	CINCINNATI	4	57.4	.027	1	.05	92.0	84.1	88.1	10.0	85	101	115	145	175	218	263	328	360	411	1.0	1.5
4	CINCINNATI	1	61.3	.010	1	.00	92.0	81.9	87.0	11.9	84	90	101	121	145	205	261	317	341	394	1.0	4.0
4	CLEVELAND	3	56.8	.010	-	.00	101.0	90.8	95.9	12.0	78	90	108	135	168	222	254	298	326	366	.7	1.3
4	CLEVELAND	4	61.6	.019	1	.63	92.4	85.3	88.9	11.8	85	102	115	139	164	213	263	337	370	407	1.0	1.6
4	CLEVELAND	3	59.2	.043	-	.00	91.8	83.3	87.6	-	-	-	-	-	-	-	-	-	-	-	-	-
4	CLEVELAND	3	61.0	.011	1	.03	91.4	82.7	87.1	11.9	86	102	114	133	152	202	266	330	354	388	.9	1.7
4	CLEVELAND	4	56.1	.030	-	.00	91.1	83.0	87.1	9.2	93	117	135	167	194	237	279	338	368	417	1.0	1.1
4	COLUMBUS	1	57.5	.003	1	.00	100.5	91.0	95.8	11.6	87	107	119	145	180	229	250	311	337	370	1.0	3.0
4	COLUMBUS	1	59.0	.013	0	.47	96.8	86.8	91.8	13.9	88	94	98	119	146	208	250	303	336	397	1.0	6.0
4	COLUMBUS	1	61.5	.023	0	.00	92.9	83.6	88.3	12.6	90	97	110	135	163	228	281	361	400	434	1.0	4.0
4	COLUMBUS	1	61.5	.009	0	.00	92.0	81.9	87.0	11.5	92	103	113	130	148	198	263	327	349	390	1.0	2.0
4	PITTSBURGH	1	56.7	.001	0	.00	100.3	90.4	95.4	12.9	85	93	107	134	170	225	248	309	336	365	1.0	4.0
4	PITTSBURGH	4	61.4	.012	0	.41	96.5	86.7	91.6	15.4	79	86	93	111	131	190	244	294	320	372	.M	4.7
4	PITTSBURGH	1	61.2	.009	4	.00	91.9	82.2	87.1	11.4	94	104	115	131	150	202	267	329	352	397	1.0	2.0
4	PITTSBURGH	2	55.9	.004	4	.00	91.7	83.4	87.6	10.9	86	103	115	140	168	232	287	335	357	406	1.0	2.0
4	PITTSBURGH	1	63.1	.026	3	.00	91.6	82.3	87.0	10.7	90	107	117	137	160	207	253	329	358	400	1.0	1.0
4	PITTSBURGH	4	58.7	.017	2	.57	91.3	84.2	87.8	11.6	88	99	113	141	171	231	298	359	392	423	1.0	4.0
5	DETROIT	1	61.5	.009	3	.00	92.2	82.0	87.1	11.3	90	100	109	125	143	192	258	325	348	390	1.0	3.0
5	DETROIT	3	56.2	-	-	.00	91.6	83.4	87.5	9.2	86	108	128	158	186	234	276	336	366	410	.9	1.6
5	DETROIT	4	62.2	.033	0	.00	91.2	83.6	87.4	11.2	87	99	112	135	159	207	249	309	333	383	1.0	3.0
5	DETROIT	3	62.9	-	-	.35	90.5	84.3	87.4	13.0	80	91	105	126	154	209	260	333	364	400	1.0	2.0

TABLE 6. - MOTOR GASOLINE SURVEY, WINTER 1970-71
ANALYSES OF LOW-LEAD CONTENT GASOLINE--CONTINUED

DISTRICT	CITY	SAMPLES	GR., ASTM D287 API	SULF, ASTM D1266 WT %	GUM, ASTM D381 MG	LEAD, ASTM D526 G/GAL	OCTANE NUMBER RES, ASTM D908	OCTANE NUMBER MOT, ASTM D357	OCTANE NUMBER R+M --- 2	RVP, ASTM D323 LB	DISTILLATION, ASTM D86 TEMPERATURE, F (CORRECTED TO 760 MM HG) IBP	PERCENT EVAPORATED 5	10	20	30	50	70	90	95	EP	RES %	LOSS %
6	CHICAGO	1	62.6	-	-	.73	94.1	86.6	90.4	9.5	96	-	132	157	-	213	-	316	-	400	1.0	2.0
6	CHICAGO	2	60.5	.008	-	.04	92.3	83.8	88.1	11.7	79	89	104	128	155	207	246	315	350	400	.8	2.7
6	CHICAGO	3	57.2	.029	-	.00	91.5	82.9	87.2	8.9	85	105	124	153	178	218	258	323	355	400	1.0	2.0
6	CHICAGO	3	61.1	.035	-	.00	91.4	82.8	87.1	11.3	80	94	109	136	174	225	266	335	368	415	.9	2.6
6	CHICAGO	3	64.7	.032	-	.00	91.3	82.9	87.1	-	-	-	-	-	-	-	-	-	-	-	-	-
6	MILWAUKEE	1	56.8	-	-	.00	91.0	83.5	87.3	-	-	-	-	-	-	-	-	-	-	-	-	-
7	INDIANAPOLIS	2	61.7	-	-	.00	92.2	84.0	88.1	11.5	78	94	110	134	162	208	248	320	352	394	.7	1.3
7	INDIANAPOLIS	3	62.5	.044	-	.00	91.4	83.7	87.6	-	-	-	-	-	-	-	-	-	-	-	-	-
7	INDIANAPOLIS	3	56.6	.036	-	.00	90.9	83.3	87.1	8.6	90	112	132	162	188	229	276	340	366	410	.8	1.2
7	LOUISVILLE	2	56.5	-	-	.41	96.9	86.6	91.8	14.6	76	88	102	122	152	214	252	308	338	390	.7	2.3
7	LOUISVILLE	1	62.9	-	-	.56	93.7	86.8	90.3	-	-	-	-	-	-	-	-	-	-	-	-	-
7	LOUISVILLE	2	60.4	-	-	.68	92.2	84.9	88.6	12.0	80	100	112	134	156	206	264	334	366	388	.8	1.2
7	LOUISVILLE	3	57.8	-	-	.00	91.4	83.6	87.5	10.7	80	98	114	140	170	217	260	330	362	410	.9	2.1
7	LOUISVILLE	1	63.1	-	-	.00	90.8	83.0	86.7	-	-	-	-	-	-	-	-	-	-	-	-	-
7	ST. LOUIS	1	62.8	-	-	.70	94.0	87.1	90.6	13.5	78	88	97	116	140	193	252	330	361	412	1.0	2.5
7	ST. LOUIS	2	58.6	-	2	.00	91.8	84.1	88.0	9.5	96	-	132	157	-	213	-	316	-	400	1.0	2.0
7	ST. LOUIS	2	63.3	-	-	.48	91.0	84.2	87.6	-	-	-	-	-	-	-	-	-	-	-	-	-
8	JACKSON	1	61.0	-	-	.00	91.3	-	45.7	-	-	-	-	-	-	-	-	-	-	-	-	-
8	LITTLE ROCK	4	60.7	.010	1	.00	100.4	91.1	95.8	12.1	81	96	109	135	174	231	255	312	335	378	.9	1.6
8	LITTLE ROCK	3	62.9	.009	-	.50	96.6	87.1	91.9	12.9	81	88	100	120	141	192	242	293	314	361	1.0	2.0
8	LITTLE ROCK	3	60.8	.010	-	.00	91.7	83.2	87.5	-	-	-	-	-	-	-	-	-	-	-	-	-
8	LITTLE ROCK	1	61.9	-	-	.60	91.4	84.0	87.7	-	-	-	-	-	-	-	-	-	-	-	-	-
8	MEMPHIS	3	58.0	.027	-	.00	100.5	90.5	95.5	11.9	83	91	102	128	163	222	253	299	329	370	.9	1.6
8	MEMPHIS	3	60.0	-	-	.41	96.2	87.0	91.6	12.9	82	94	106	129	156	208	247	295	325	370	.8	1.7
8	MEMPHIS	3	58.8	-	-	.38	91.2	85.1	88.2	-	-	-	-	-	-	-	-	-	-	-	-	-
8	MEMPHIS	3	60.8	-	-	.00	91.2	82.0	86.6	-	-	-	-	-	-	-	-	-	-	-	-	-
8	NEW ORLEANS	4	54.3	.002	-	.00	100.9	91.0	96.0	11.8	85	98	111	137	172	224	252	316	340	375	.9	1.4
8	NEW ORLEANS	3	59.5	-	-	.48	96.3	87.1	91.7	12.8	80	90	101	121	143	202	245	294	323	396	.9	1.6
8	NEW ORLEANS	3	58.2	-	-	.50	91.6	85.3	88.5	-	-	-	-	-	-	-	-	-	-	-	-	-
8	NEW ORLEANS	2	61.5	-	-	.00	91.6	83.3	87.5	-	-	-	-	-	-	-	-	-	-	-	-	-
8	NEW ORLEANS	3	65.8	-	-	.02	91.5	83.9	87.7	-	-	-	-	-	-	-	-	-	-	-	-	-
8	SHREVEPORT	1	61.4	.000	1	.00	101.2	90.2	95.7	12.3	76	92	107	134	171	229	250	314	336	370	1.0	2.0

TABLE 6. - MOTOR GASOLINE SURVEY, WINTER 1970-71
ANALYSES OF LOW-LEAD CONTENT GASOLINE--CONTINUED

DISTRICT	CITY	SAMPLES	GR., ASTM D287 API	SULF, ASTM D1266 WT %	GUM, ASTM D381 MG	LEAD, ASTM D526 G/GAL	OCTANE NUMBER RES, ASTM D908	OCTANE NUMBER MOT, ASTM D357	OCTANE NUMBER R+M --- 2	RVP, ASTM D323 LB	DISTILLATION, ASTM D86 TEMPERATURE, F (CORRECTED TO 760 MM HG) IBP	PERCENT EVAPORATED 5	10	20	30	50	70	90	95	EP	RES %	LOSS %
9	MINNEAPOLIS-ST. PAUL	2	66.2	-	-	.00	92.2	86.2	89.2	-	-	-	-	-	-	-	-	-	-	-	-	-
9	MINNEAPOLIS-ST. PAUL	1	62.4	-	-	.00	91.4	82.6	87.0	-	-	-	-	-	-	-	-	-	-	-	-	-
10	DES MOINES	3	53.9	.010	-	.00	101.1	91.2	96.2	11.6	78	94	114	144	182	232	262	312	336	372	.7	1.8
10	DES MOINES	3	58.2	.015	-	.00	92.5	82.9	87.7	-	-	-	-	-	-	-	-	-	-	-	-	-
10	DES MOINES	6	59.3	.021	-	.00	91.1	83.1	87.1	10.9	81	91	109	138	172	218	261	333	365	418	1.0	3.0
10	DES MOINES	3	61.8	.033	-	.52	90.9	84.6	87.8	-	-	-	-	-	-	-	-	-	-	-	-	-
10	KANSAS CITY	3	63.8	.079	-	.00	90.4	80.5	85.5	-	-	-	-	-	-	-	-	-	-	-	-	-
11	DALLAS-FT. WORTH	3	61.2	.020	-	.50	96.5	86.9	91.7	12.6	85	92	103	123	143	191	244	300	323	366	.7	1.8
11	DALLAS-FT. WORTH	1	61.0	-	-	.00	91.1	83.5	87.3	-	-	-	-	-	-	-	-	-	-	-	-	-
11	DALLAS-FT. WORTH	2	62.2	.051	-	.53	90.8	84.2	87.5	11.1	84	91	101	121	142	199	262	339	374	410	1.2	1.3
11	WICHITA	1	70.4	-	-	.67	92.9	86.6	89.8	13.0	80	91	99	112	124	165	223	299	338	400	1.0	2.0
12	HOUSTON	4	60.5	.022	2	.39	96.8	87.0	91.9	11.8	81	91	105	127	150	207	248	312	342	374	.9	1.9
12	HOUSTON	2	62.3	.054	-	.55	91.5	84.4	88.0	-	-	-	-	-	-	-	-	-	-	-	-	-
12	HOUSTON	4	61.6	.011	-	.01	91.4	83.8	87.6	10.5	84	98	109	129	152	209	264	316	338	370	1.0	1.0
12	HOUSTON	2	59.8	.014	2	.05	91.2	84.3	87.8	10.5	90	101	113	136	154	215	260	312	339	388	1.0	2.0
12	SAN ANTONIO	3	59.3	.012	-	.50	96.4	86.4	91.4	10.1	87	100	110	128	145	201	270	317	335	376	.9	1.1
12	SAN ANTONIO	2	57.8	.010	-	.44	91.7	84.3	88.0	10.2	88	102	112	132	153	207	252	306	341	398	1.0	1.0
13	ALBUQUERQUE	1	68.2	-	-	.66	91.8	84.3	88.1	-	-	-	-	-	-	-	-	-	-	-	-	-
13	ALBUQUERQUE	3	60.6	.010	-	.00	91.3	83.0	87.2	7.8	95	117	133	159	183	221	253	313	343	397	.8	.7
13	ALBUQUERQUE	3	56.4	-	-	.00	89.7	80.9	85.3	7.6	95	114	128	154	180	229	280	348	374	421	.7	.6
13	BAKERSFIELD	1	59.1	-	-	.53	94.6	84.8	89.7	-	-	-	-	-	-	-	-	-	-	-	-	-
13	BAKERSFIELD	1	56.3	-	-	.36	94.0	85.5	89.8	-	-	-	-	-	-	-	-	-	-	-	-	-
13	BAKERSFIELD	2	56.0	.075	-	.00	91.6	82.1	86.9	11.0	86	-	116	-	-	232	-	334	-	-	-	-
13	DENVER	1	61.6	.090	3	.68	91.4	84.0	87.7	11.3	72	77	99	121	146	196	257	339	356	394	1.0	4.0
13	DENVER	1	60.9	-	-	.61	90.1	82.8	86.5	-	-	-	-	-	-	-	-	-	-	-	-	-
13	DENVER	3	61.2	-	-	.00	88.5	81.5	85.0	-	-	-	-	-	-	-	-	-	-	-	-	-
13	DENVER	3	62.4	-	-	.62	90.9	83.5	87.2	12.3	80	91	100	116	136	193	256	336	368	430	1.1	2.4
13	DENVER	2	62.5	.016	2	.64	90.7	84.2	87.5	12.0	76	84	97	116	137	190	251	333	369	425	1.1	2.7
13	PHOENIX	4	60.0	.012	1	.00	91.8	83.1	87.5	9.2	98	116	129	150	167	213	254	311	344	390	1.0	.6
13	PHOENIX	4	56.6	.040	1	.00	91.7	82.7	87.2	6.7	90	118	135	162	187	233	268	345	381	436	1.0	1.0
13	PHOENIX	3	56.5	-	-	.00	91.5	82.2	86.9	8.5	97	113	129	154	177	228	273	332	357	406	1.0	1.0

TABLE 6. - MOTOR GASOLINE SURVEY, WINTER 1970-71
ANALYSES OF LOW-LEAD CONTENT GASOLINE--CONTINUED

DISTRICT	CITY	SAMPLES	GR., ASTM D287 API	SULF, ASTM D1266 WT %	GUM, ASTM D381 MG	LEAD, ASTM D526 G/GAL	OCTANE NUMBER RES, ASTM D908	OCTANE NUMBER MOT, ASTM D357	OCTANE NUMBER R+M --- 2	RVP, ASTM D323 LB	DISTILLATION, ASTM D86 TEMPERATURE, F (CORRECTED TO 760 MM HG) IBP	PERCENT EVAPORATED 5	10	20	30	50	70	90	95	EP	RES %	LOSS %
13	RENO	1	57.6	-	-	.00	91.2	-	45.6	-	-	-	-	-	-	-	-	-	-	-	-	-
13	SALT LAKE CITY	3	58.9	.027	-	.00	89.7	80.8	85.3	-	-	-	-	-	-	-	-	-	-	-	-	-
13	SALT LAKE CITY	3	61.2	.024	-	.00	89.3	81.3	85.3	7.9	96	117	129	147	166	205	248	313	338	382	1.1	.4
14	SPOKANE	1	64.3	.030	3	.65	93.4	86.9	90.2	11.7	80	94	106	127	150	194	239	306	334	400	1.0	3.0
14	SPOKANE	3	60.8	.010	2	.03	90.9	82.7	86.8	7.5	100	118	130	150	170	212	255	315	346	384	1.0	2.0
14	SPOKANE	2	42.4	.008	-	.00	90.4	82.0	86.2	-	-	-	-	-	-	-	-	-	-	-	-	-
15	SEATTLE	3	56.0	.070	-	.00	90.9	81.7	86.3	-	-	-	-	-	-	-	-	-	-	-	-	-
15	SEATTLE	4	63.5	.019	3	.00	90.6	82.7	86.7	7.2	108	126	135	147	162	194	234	314	344	409	1.0	2.0
15	SEATTLE	4	62.6	.014	2	.00	90.5	82.0	86.3	12.5	82	97	109	129	156	206	252	319	350	400	1.0	4.0
16	SAN FRANCISCO	2	63.8	-	-	.63	96.4	85.4	90.9	12.4	85	98	108	125	144	184	231	306	336	384	.8	1.2
16	SAN FRANCISCO	5	58.5	.050	1	.49	94.6	85.6	90.1	10.9	87	98	115	140	168	218	265	331	361	423	1.0	2.0
16	SAN FRANCISCO	1	62.6	-	-	.73	94.6	84.3	89.5	-	83	99	113	135	160	208	257	337	381	406	1.6	.9
16	SAN FRANCISCO	5	61.3	.010	1	.37	94.2	86.3	90.3	11.5	86	99	111	130	150	192	242	300	344	395	.9	1.7
16	SAN FRANCISCO	1	57.9	-	-	.60	92.6	82.3	87.5	11.6	86	98	113	139	171	213	272	335	360	388	1.0	2.0
16	SAN FRANCISCO	6	57.3	.010	1	.00	91.3	82.5	86.9	7.6	99	112	125	147	169	210	260	331	359	415	1.0	1.6
16	SAN FRANCISCO	3	56.3	.080	2	.03	91.0	82.6	86.8	7.9	99	113	127	152	179	235	282	341	364	408	1.0	1.6
16	SAN FRANCISCO	3	62.0	.020	1	.00	90.9	82.2	86.6	7.2	104	124	134	149	163	197	235	314	348	405	1.0	.8
17	LOS ANGELES	5	59.7	.059	1	.50	94.7	85.3	90.0	12.2	87	100	113	133	157	209	261	322	349	395	1.1	1.4
17	LOS ANGELES	5	56.3	.036	1	.48	94.7	84.7	89.7	10.7	87	104	118	144	173	233	290	343	363	402	1.1	1.1
17	LOS ANGELES	5	56.8	.030	1	.48	94.1	85.1	89.6	12.7	84	95	109	134	166	227	283	363	391	419	1.2	2.2
17	LOS ANGELES	1	59.8	.005	1	.47	92.2	82.7	87.5	10.9	92	108	117	135	155	208	275	344	371	417	1.3	.7
17	LOS ANGELES	7	56.8	-	2	.01	91.6	83.5	87.6	7.7	96	120	136	160	185	229	272	333	364	407	1.1	.8
17	LOS ANGELES	5	56.3	.060	2	.02	91.5	82.3	86.9	8.6	97	114	128	152	176	230	280	339	366	407	1.2	.7
17	LOS ANGELES	5	56.1	.043	1	.05	91.4	82.3	86.9	7.1	97	119	132	151	172	225	275	327	351	410	1.2	.8
17	LOS ANGELES	5	54.9	-	1	.01	91.4	82.9	87.2	7.8	97	116	134	162	188	233	272	323	343	399	1.2	1.0
17	HONOLULU	2	59.9	.050	2	.53	93.8	86.1	90.0	9.1	92	111	120	143	168	215	265	359	394	417	1.3	1.3
17	HONOLULU	2	61.0	.150	0	.46	93.5	84.3	88.9	9.3	92	110	119	135	151	192	259	362	390	424	1.1	1.0
17	HONOLULU	1	60.2	.050	1	.00	93.2	83.2	88.2	8.1	97	122	140	161	179	201	236	353	400	409	1.5	1.5

TABLE 7. - Cumulative percents of samples of all grades by research octane numbers by districts, motor-gasoline survey, winter 1970-71

Research octane number	District																	Cumulative total samples
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	
88													.4					2
89										.3			1.7					10
90		.6			1.0		.4			1.7	.4		5.2	1.0	3.1			46
91	4.1	3.5	1.4	3.9	3.8	4.7	5.3	4.3	4.0	6.0	1.4	4.1	12.5	7.6	7.7	8.5	7.4	239
92	5.5	5.4	5.0	8.9	5.8	8.1	8.8	7.5	32.3	25.1	19.7	7.7	33.3	22.7	12.3	13.1	16.7	627
93	5.5	7.3	5.8	11.5	7.7	8.1	11.1	12.5	48.5	34.4	39.1	12.4	39.6	27.3	50.0	14.4	18.7	880
94	22.8	22.0	29.5	29.0	17.3	20.8	34.2	39.3	50.5	45.8	49.3	40.2	49.4	47.0	53.1	35.9	38.9	1,595
95	44.1	47.8	49.3	50.9	49.0	48.3	53.1	51.4	50.5	52.5	50.0	50.0	52.8	49.5	54.6	51.6	54.7	2,228
96	49.0	51.3	52.1	54.3	55.3	53.7	55.6	52.9	50.5	53.2	50.4	52.1	54.3	50.0	54.6	53.6	56.2	2,330
97	51.7	53.4	53.2	55.6	55.3	53.7	56.4	55.0	50.5	54.8	51.1	55.2	65.1	51.5	54.6	54.2	56.7	2,438
98	51.7	53.5	53.5	55.9	55.3	53.7	56.8	55.0	53.5	58.2	56.3	55.2	67.5	59.1	54.6	54.9	57.1	2,500
99	53.1	55.4	56.0	58.5	65.4	67.1	62.1	58.6	86.9	81.3	78.5	58.2	80.7	72.2	58.5	61.4	63.5	2,891
100	84.8	85.6	90.5	91.6	97.6	99.3	93.8	95.0	100.0	94.6	98.9	94.8	99.8	96.5	97.7	98.0	98.5	4,155
101	97.2	98.3	97.8	99.5	99.0	100.0	100.0	100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	4,376
102	99.3	99.8	99.7	100.0	100.0													4,398
103	100.0	100.0	100.0															4,401

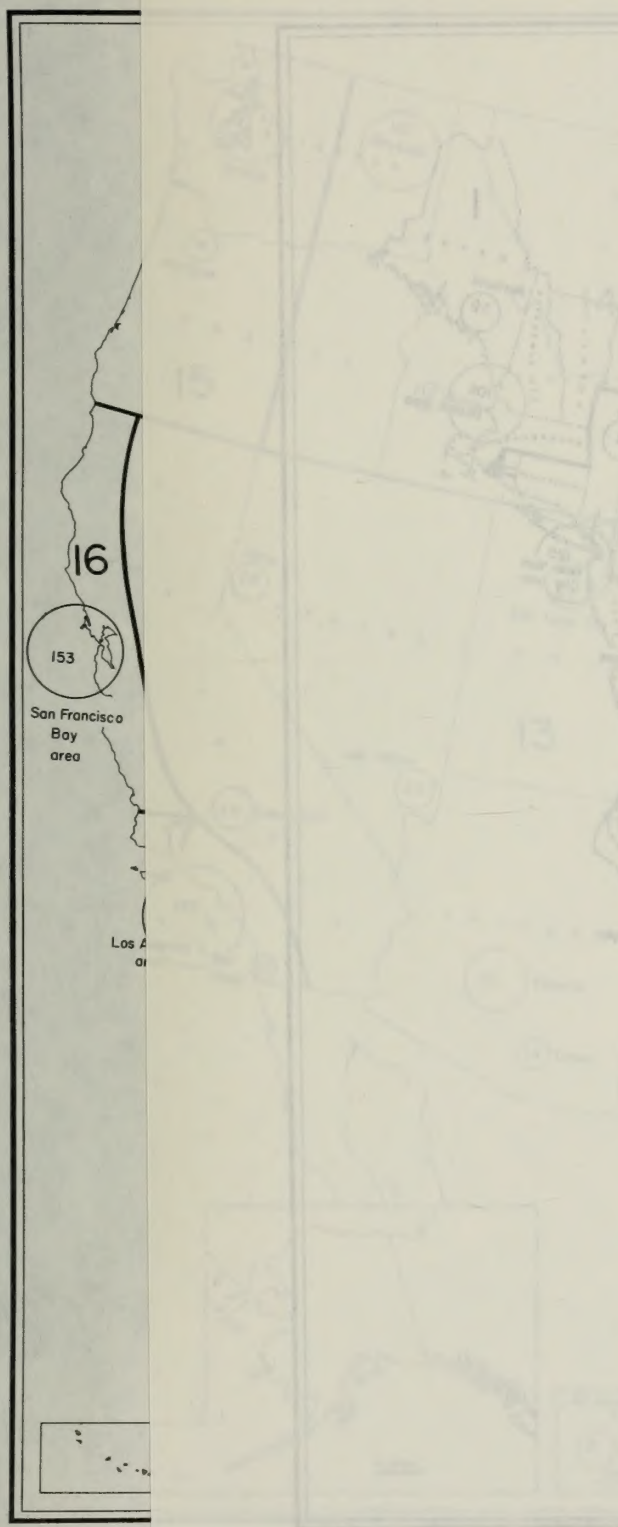
TABLE 8. - Cumulative percents of samples of all grades by motor octane numbers by districts, motor-gasoline survey, winter 1970-71

Motor octane number	District																	Cumulative total samples
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	
80										.7			.2					3
81								.4		1.0			1.9		.8			15
82		.7	1.1	1.8	1.0	1.3		.7		1.0			3.0	1.0	6.2	3.4	3.5	62
83	2.1	2.4	2.0	4.7	1.9	6.7	2.1	2.5	4.0	3.7		1.5	5.4	6.6	8.5	7.4	10.9	171
84	4.1	3.7	4.2	8.1	4.8	8.1	5.8	4.7	11.1	7.4	1.8	3.6	9.7	11.1	8.5	14.8	18.4	310
85	7.6	7.5	5.6	9.7	5.8	8.1	9.5	6.5	30.3	17.4	5.6	5.7	24.7	25.3	9.2	28.2	37.3	593
86	27.6	24.7	19.6	25.6	25.5	22.1	17.7	21.1	43.4	36.5	26.1	14.9	40.6	35.4	10.8	47.7	52.7	1,261
87	46.9	50.3	44.4	53.3	50.5	49.0	45.7	48.0	49.5	50.8	46.1	40.2	50.1	45.5	36.2	52.3	55.2	2,127
88	51.7	52.5	51.7	55.9	55.3	53.7	55.6	54.5	53.5	52.8	50.7	50.5	53.1	52.5	54.6	53.0	55.7	2,340
89	51.7	53.6	53.1	55.9	55.3	53.7	56.0	54.5	53.5	53.8	51.1	55.2	59.3	60.6	54.6	53.0	56.2	2,415
90	53.1	55.5	54.5	56.1	55.3	53.7	56.4	55.9	56.6	54.2	51.1	55.2	65.6	68.2	57.7	53.7	60.7	2,505
91	60.0	65.2	60.9	62.9	60.1	59.1	61.7	59.9	60.6	57.9	53.9	57.7	71.8	72.7	73.8	68.5	79.1	2,808
92	84.8	86.7	86.0	79.4	80.3	84.6	76.1	76.0	88.9	79.3	75.0	70.6	82.2	83.3	98.5	95.3	94.0	3,628
93	99.3	99.1	98.3	93.5	95.7	99.3	95.5	97.5	97.0	97.0	93.3	93.3	90.1	95.5	100.0	100.0	100.0	4,218
94	100.0	99.8	100.0	98.4	99.5	99.3	99.6	99.3	98.0	100.0	97.9	96.9	93.8	100.0				4,330
95		100.0		99.5	100.0	100.0	100.0	100.0	100.0		99.6	100.0	98.7					4,379
96				99.7							100.0		100.0					4,388
97				100.0														4,389

TABLE 9. - Locations and numbers of samples, motor gasoline survey, winter 1970-71

State	Location	Samples
District 1 (Northeast)		
Maine	Portland	39
Massachusetts	Boston area	106
	2 locations	145
District 2 (Mid-Atlantic Coast)		
Maryland	Baltimore	92
New Jersey and New York	New York City area	125
New York	Albany	34
Pennsylvania	Harrisburg	26
Pennsylvania and New Jersey	Philadelphia area	170
Virginia	Richmond	89
	6 locations	536
District 3 (Southeast)		
Alabama	Birmingham	76
	Mobile	31
Florida	Jacksonville	22
	Miami area	64
Georgia	Atlanta	99
North Carolina	Charlotte	3
	Wilmington	30
South Carolina	Charleston	4
Tennessee	Chattanooga	30
	9 locations	359
District 4 (Appalachian)		
New York	Buffalo	94
Ohio	Cincinnati	92
	Cleveland	106
	Columbus	15
Pennsylvania	Pittsburgh	68
West Virginia	Charleston	8
	6 locations	383
District 5 (Michigan)		
Michigan	Detroit	173
	Northern Peninsula	35
	2 locations	208
District 6 (North Illinois)		
Illinois and Indiana	Chicago area	124
Iowa	Davenport	1
Wisconsin	Madison	21
	Milwaukee	4
	4 locations	150
District 7 (Central Mississippi)		
Indiana	Evansville	35
	Indianapolis	82
Kentucky	Louisville	59
Missouri and Illinois	St. Louis area	69
	4 locations	245
District 8 (Lower Mississippi)		
Arkansas	Little Rock	85
Louisiana	Baton Rouge	36
	Lake Charles	2
	New Orleans	67
	Shreveport	4
Mississippi	Jackson	1
Tennessee	Memphis	85
	7 locations	280
District 9 (North Plains)		
Minnesota	Minneapolis-St. Paul	81
North Dakota	Williston	18
	2 locations	99
District 10 (Central Plains)		
Iowa	Des Moines	134
Kansas	Phillipsburg	10
Kansas and Missouri	Kansas City area	81
Nebraska	Omaha	64
	Scotts Bluff	10
	5 locations	299
District 11 (South Plains)		
Kansas	Coffeyville	6
	McPherson	10
	Wichita	61
Missouri	Springfield	30
Oklahoma	Bartlesville	4
	Tulsa	88
Texas	Dallas-Fort Worth	85
	7 locations	284
District 12 (Southern Texas)		
Texas	Houston	146
	San Antonio	48
	2 locations	194
District 13 (South Mountain States)		
Arizona	Phoenix	73
	Tucson	14
California	Bakersfield	24
Colorado	Denver	99
Nevada	Las Vegas	22
	Reno	25
New Mexico	Albuquerque	94
Texas	Amarillo	81
	El Paso	24
	Lubbock	24
Utah	Salt Lake City	58
	11 locations	538
District 14 (North Mountain States)		
Idaho	Boise	12
Montana	Billings	70
	Great Falls	4
Washington	Spokane	110
Wyoming	Casper	2
	5 locations	198
District 15 (Pacific Northwest)		
Oregon	Portland	14
Washington	Seattle	116
	2 locations	130
District 16 (Northern California)		
California	San Francisco Bay area	153
	1 location	153
District 17 (Southern California and Hawaii)		
California	Los Angeles area	172
	San Diego	10
Hawaii	Honolulu	21
	3 locations	203
Total	78 locations	4,404

District	Locations	Samples	Percent
1	2	145	3.3
2	6	536	12.2
3	9	359	8.2
4	6	383	8.7
5	2	208	4.7
6	4	150	3.4
7	4	245	5.5
8	7	280	6.4
9	2	99	2.2
10	5	299	6.8
11	7	284	6.4
12	2	194	4.4
13	11	538	12.2
14	5	198	4.5
15	2	130	3.0
16	1	153	3.5
17	3	203	4.6
Total	78	4,404	100.0


16
153
San Francisco
Bay
area

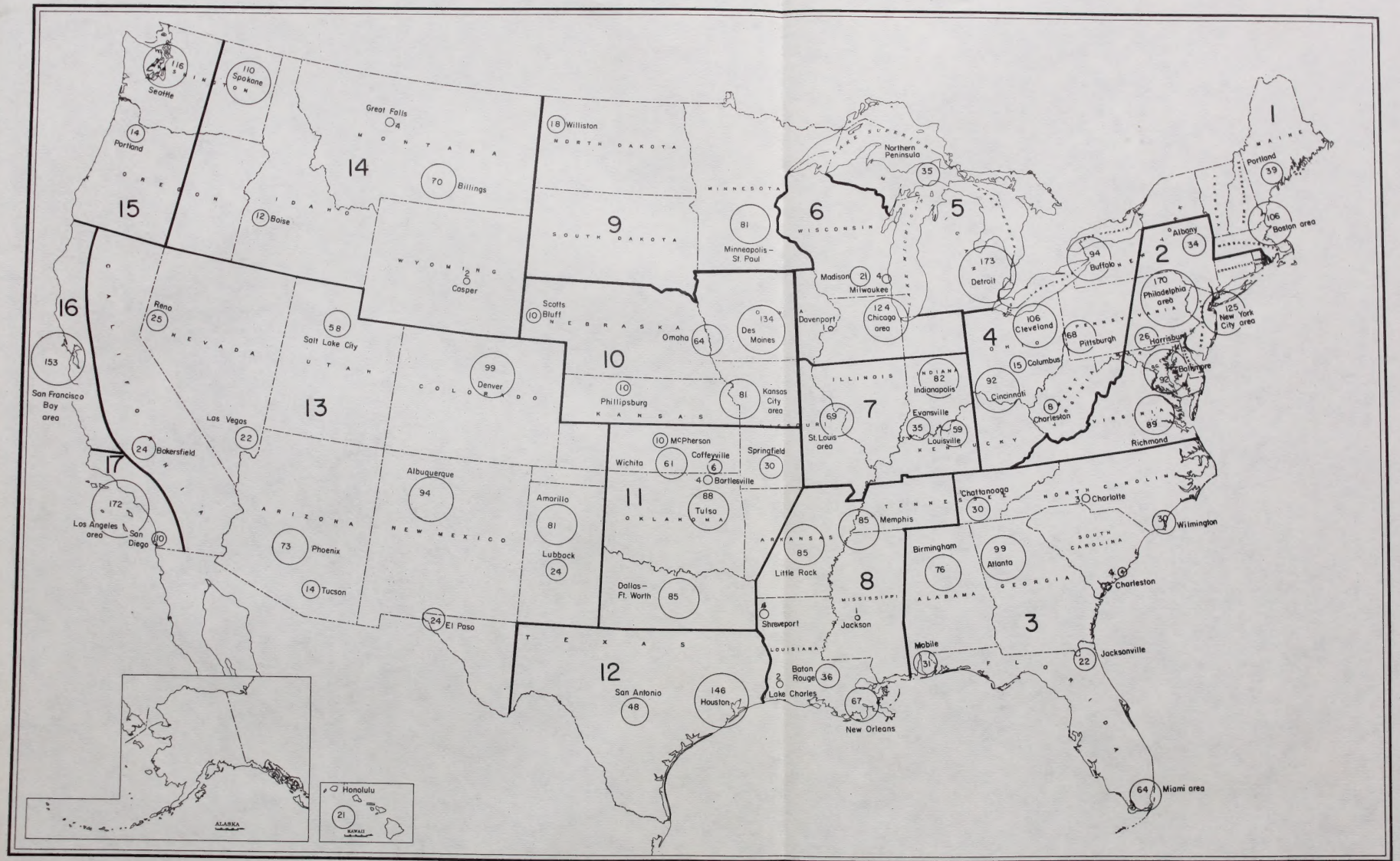


FIGURE 5.— Map Showing Locations and Numbers of Samples for the National Motor Gasoline Survey, Winter 1970-71.

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